DOCUMENT RESUME

ED 196 516 PS 011 543

AUTHOR Goldenberg, Ronald, Ed.
TITLE Educating Our Gifted and Talented Children.
INSTITUTION Evansville Univ., Ind. School of Education.
PUB DATE 80
NOTE 178p.
JOURNAL CIT Journal of Children and Youth; Spring 1980

EDRS PRICE MF01/PC08 Plus Postage.
DESCRIPTORS Adolescents; Children; Creativity; *Curriculum Development; *Educational Policy; Futures (of Society); *Gifted; *Instruction; Mainstreaming; *Student Characteristics

ABSTRACT

This issue of the "Journal of Children and Youth" is dedicated to the education of gifted and talented children. Problems and possibilities of programs for gifted youth in the areas of educational policy, curriculum development, mainstreaming, characteristics of gifted students, program development and instructional approaches are discussed in 29 brief articles. This issue of the journal is presented as an advocate of the importance of providing gifted and talented youth with the most effective qualitatively different education possible. (Author/RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED196516

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

JOURNAL OF CHILDREN AND YOUTH

School of Education Journal

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Ronald E. Goldenberg

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

University of Evansville

Spring 1980

PS011543

CHILDREN AND YOUTH

Editor

Ronald Goldenberg
School of Education
University of Evansville
Evansville, Indiana 47702

Board of Consulting and Contributing Editors:

Alfred Arth
College of Education
The University of Wyoming
Laramie, Wyoming 82070

Howard Johnston
College of Education
and Home Economics
University of Cincinnati
Cincinnati, Ohio 45202

Lillian Stephens
State University of New
York at Stony Brook
Stony Brook, New York 11794

Graham Bond
Marshlands Primary School
Hailsham Sussex
United Kingsom

Vincent Rogers
School of Education
University of Connecticut
Storrs, Connecticut 06268

Dick Thomas
Bicentennial School
Glendale, Arizona 85311

Richard Ishler
School of Education
Emporia State University
Emporia, Kansas 66801

Darrell Roubinek
School of Education
Southwest Missouri
State University
Springfield, Missouri 65802

Stan Rachelson
School of Education
University of Evansville
Evansville, Indiana 47702

Children and Youth is a non-profit publication intended for reader services. Original manuscripts are welcomed. They must be typewritten, single-spaced, and conform to usual manuscript form. See University of Chicago, or American Psychological Association formats. All correspondence should be addressed to the Editor, Ronald Goldenberg, School of Education, University of Evansville, P. O. Box 329, Evansville, Indiana 47702.

CHILDREN AND YOUTH

Please add my name to your mailing list:

Name_____ Home Address_____

School Address_____ Position_____

Send Children and Youth to: Home_____ School_____

Return to: Ronald E. Goldenberg
School of Education
University of Evansville
P. O. Box 329
Evansville, IN 47702

CHILDREN AND YOUTH

"Educating Our Gifted and Talented Children"

Wilma C. Shafer, University of Evansville, Guest Editor
Spring, 1980

TABLE OF CONTENTS

Page

Introduction. 1

Desire to Know. 2
Marjorie E. Souers, Indiana University-Purdue University at Fort Wayne

All Children Are Gifted 11
Virginia F. Ritter and John M. Ritter, University of Northern Iowa

The Child Thinks--Divergently 22
Cynthia Smanski Sunal, West Virginia University

Promoting Decision Making for the Gifted. 27
Bruce Frazee, Trinity University

Educating the Talented and Gifted for Citizenship 37
James L. Barth and S. Samuel Shermis, Purdue University

Social Studies Open Doors for Gifted Children 48
Maxine Dunfee, Indiana University

Establishing Social Studies Programs for the Gifted 53
Thomas C. Seifert, Indiana State University

Beyond Lists and Writing Definitions--Deeper Dimensions of Vocabulary Study for the Gifted Student in the Classroom 57
Rexel E. Brown, University of Evansville

The Gifted Reader and the "Dark Is Rising" Sequences. 70
Mercedes Ballou, Northern Kentucky University

Who Has His "Hands On" the Elementary Science Curriculum? 76
Bettye Lou Jerrel, Evansville-Vanderburgh School Corporation

The Gifted and Talented: Implications for Teaching. 78
Robert E. Mays and Charles J. Bertram, Indiana State University-Evansville

Let's Integrate, Not Segregate in Educating the Gifted. 87
Dorothy I. Seaberg, Northern Illinois University

A Holistic Approach to Future Studies 91
Betty Barclay Franks, Carnegie Mellow University and
Mary K. Howard, John Carroll University

Futures Study: A Content and Process that Works 96
Geoffrey H. Fletcher

Brebulos-5: A Mission into the Future 104
Ann H. Stoddard, University of North Florida and Diane Mellow,
Duvall County Schools

Future Studies for the Gifted and Talented. 109
Robert M. Fitch, The University of Iowa

Utilizing Community Resources for the Gifted and Talented Student . .113
Eugene Campanale, St. Mary's College

Simulation/Gaming and the Gifted and Talented 118
Michael J. Rockler, Rutgers University

Locating Free Materials to Motivate Gifted Students in the Regular
Classroom 124
Charles R. Duvall, Indiana University at South Bend

Adolescents Are Gifted, Too!. 128
Donald W. Jones, Ball State University

Learning Through Doing: College Undergraduate Plan for the Local
Academically Talented. 134
Paul Allison, Kimberley Killham, Margaret Stepniewski
DePauw University

Gifted Education-Alive and Well in the Regular Classroom 140
George H. Schauer, Northwest Tri-County Intermediate Unit,
Edinboro, Pennsylvania

MIZAR: A Program with A Double Purpose 143
Sue Nelle and Grace Dellart, Denton Public Schools

LARC....Learning Activities to Raise Creativity. 147
Jerome P. Oberman, Long Beach City School District

Integrating A Pull-Out Program for the Gifted into the Total Education
Program of A School District 150
Gitta Blementhal, Long Beach City School District

Accent on Gifted/Talented Students 154
Elizabeth Ryan, Evansville-Vanderburgh School Corporation (IN)

Elitism: Some Responses. 156
Frederick B. Tuttle, Jr., Educational Consultant

Legal Considerations of Equal Educational Opportunities for the Gifted 161
Hendrik deBruin, The Citadel

Project Work for the Gifted and Talented 168
Helen F. Darrow, University of Western Washington

INTRODUCTION

by

Wilma C. Shafer
University of Evansville

A selection of gifted children was first made at Stanford University 58 years ago by Professor Lewis M. Terman and his associates. Several thousand school children in California were tested, and from that group 1500 were selected for longitudinal study. While the 100-year research experiment continues until 2021, there have been several interesting discoveries since the study began. A 1945 follow-up study revealed that Terman's tests selected a group of individuals with persisting intellectual abilities who have become highly successful adults, assuming leadership roles in various professions. Can we, therefore, predict those gifted students in the nation's schools today who will be the professionals and leaders of the future? If so, is not the cultivation of the potential of our gifted and talented children most urgent, when we consider that their contributions can critically affect our future, and the future of mankind?

The schools of America are pledged to the full development of the individual and to the nourishment of personal capabilities of all of the children of all of the people. Yet it is openly voiced today that the most neglected students in the curriculum are the gifted and talented who comprise 2 to 7 percent of the total school population. 27 of our 50 states have legislative or administrative regulations mandating educational programs for the country's gifted and talented children. Cyril W. Woolcock says in the Introduction of Fine's (1964) book, Stretching Their Minds, "We have a fair curriculum for the average child. We have exceptionally fine programs for the physically handicapped, the emotionally disturbed or the mentally deficient child. But we do not have good programs for the gifted and superior child."

It is to the education of the gifted and talented children of our country that the Spring, 1980, issue of Journal of Children and Youth is dedicated. The issue is an advocate of the importance of providing gifted and talented youth with the most effective qualitatively different education possible. It is an urgent request to consider programs for gifted and talented children in the light of the logic that if special programs for other exceptional children are democratic, then all special programs are democratic in that they represent the same level of consideration for the education of every student. The authors of the articles appearing in this issue are persons dedicated to educational excellence whose inspiration challenges us to join them in providing leadership for the best programs and the best teachers of the gifted and talented children in our nation's schools.

Desire to Know

by

Marjorie E. Souers
Indiana University-Purdue University at Fort Wayne

Aristotle's opening statement in Metaphysics is: "All men by nature desire to know."[1] If all men by nature desire to know, one can only imagine the strength of the gifted/talented child's drive to learn, to create, to know. A major concern in education today, however, is the waste of talent among our gifted/talented students because they frequently are neither recognized nor challenged.

Within recent years various segments of society have demanded that public schools develop articulate rather than amorphous educational programs. Advocacy groups, working with the legislative and judicial branches of government because educational institutions failed to heed their pleas, have made educators more sensitive to the needs of those handicapped students whose capabilities differ significantly from the average. Therefore, it is not unreasonable to assume that the movement concerned with those students who differ because they are gifted and/or talented similarly will continue spreading to all components of education. Vernon, Adamson, and Vernon suggest:

> It is surely ironic that the most able and talented children in western societies, such as Britain, the United States and Canada, by and large receive the worst education.[2]

This failure is explained by Correll:

> A universal system of education is ultimately tested at its margins. It functions fairly well in educating most students in the middle or normal range of abilities, but has a tendency to be less effective with exceptional groups with either high or low abilities.[3]

One of the more common barriers encountered in implementing programs for the gifted/talented is the negative attitude which many people have toward these "extraordinary few." This negative reaction may stem from a feeling of intimidation because of the child's superior mental abilities or from a feeling of inability to control the child. In either instance,

> ...society, particularly North American society, tends to be suspicious of the child who is "different", and prefers the well-rounded socially and emotionally adjusted child, who shows the interests conventional to his or her sex and age, rather than the academically distinguished or artistically gifted.[4]

A large portion of our population assumes that the gifted/talented will learn in spite of any negative attitudes or educational obstacles which they encounter. As Kuhn states:

> Some people feel that no special education efforts are warranted for the gifted and the talented. They assume that exceptionally bright youngsters will flourish regardless of the learning situation—rather like plants, whose growth impulse is so strong that they will flower even in an arid environment.[5]

According to Newland, this assumption leaves

> ...society without responsibility for nurturing superior potential. This vestigial attitude is not confined to layment; many educators entertain and openly affirm it.[6]

These illogical beliefs regarding the gifted/talented ignore society's continuing need for the gifted/talented and their superior contributions. These students need to be made aware of their own potentials; our educational institutions need to provide for the development of these unique potentials.

The special abilities of the gifted/talented, as agreed upon by a majority of an advisory panel to the U.S. Office of Education, include demonstrated achievement and/or potential in any of the following areas, singly or in combination: general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, ability in visual and performing arts, and psychomotor ability. This definition indicates the trend away from defining giftedness as simply the ability to achieve high scores on an intelligence test. Further, this definition includes a target population of the upper 3 to 5% of school-age children and youth, as identified by professionally qualified persons.[7] As emphasized by Hoback and Perry:

> The definition of giftedness...should be broad enough to encompass a variety of gifts and a diversity of individuals. Yet it must be specific enough to have meaning upon which to base a program.[8]

Such a program must provide differentiated education and/or services beyond those normally provided by the regular school program in order to help the gifted/talented to realize their contributions to self and to society.

Before differentiated education can be provided, however, the gifted/talented students must be identified. Martinson advocates that:

> A successful screening and identification program has the following characteristics: early identification, continuing search, involvement of various professionals, use of multiple resource materials, and complete study and information on the abilities of the gifted child.[9]

Screening and identification should utilize the instruments of group intelligence tests, individual intelligence tests, creativity tests, achievement tests, and special aptitude tests. In addition, identification should be based upon prior achievements, teacher nominations, and nominations by parents, peers, self, or others who possess pertinent information.

Characteristics which might be considered in the screening and identification process include the students' abilities to learn easily (providing the work is intellectually stimulating), to learn by independent study, to require less explanation, to evidence precocity of speech and vocabulary, and to utilize heightened levels of thinking. "The one factor that youngsters labeled 'gifted' have in common," according to Gallagher, "is the ability to absorb abstract concepts, to organize them more effectively, and to apply them more appropriately than does the average youngster."[10]

Once the gifted/talented have been identified, educators must develop programs which have as their major objectives:

> ...to contribute to the self-fulfillment of each child and to help him learn with a view to his contributing to society in a manner and to a degree in harmony with his capability to do so.[11]

Three major approaches are typically considered in differentiating programming for the gifted/talented: acceleration, segregation, and enrichment.

Acceleration is described by Vernon, Adamson, and Vernon:

> Conventionally this implies that a child with superior ability is promoted to higher classes or grades more rapidly than usual, and thus is able to work along with others who more nearly approximate to his level. It should not mean pushing him, so much as allowing him to progress at his own rate.[12]

They continue:

> The policy is far the most economical to apply, since it does not require any additional staff (except perhaps the services of a school psychologist for testing likely candidates).[13]

Acceleration is criticized as failing to recognize that intellectual development and social development are not necessarily parallel.

Segregation usually occurs as homogeneous grouping with a self-contained classroom populated by gifted/talented students and a teacher who has been trained to work with them. Such programs enable the child to have the social/emotional support of intellectual peers as well as the cognitive interaction between true peers to stimulate transferring creative ideas into productive realities. Such programs also permit differentiated experiences designed to accommodate the different learning styles of the gifted/talented. Homogeneous grouping is criticized as fostering elitism and, as Hoback and Perry suggest:

> the danger of isolation, unreality, and parochialism is great. It is important that the gifted student get frequent feedback and develop understandings of all kinds of people. Very few aspects of adult life allow a person to use talents in isolation.[14]

They further suggest that gifted students

> ...need to learn the social skills of negotiating, of letting others discover things for themselves, and of not "hiding their light under a bushel." Finding the fine lines between confidence and arrogance, between pride and conceit, and between communication and condescension is very difficult.[15]

Enrichment may occur in the regular classroom, with an emphasis on independent study often based on contracts between the students and the teacher, or in resource rooms, equipped for exploration and study of subjects not usually covered in the regular classroom and staffed by a teacher who is a specialist in education for the gifted/talented. Enrichment may also occur by pairing children with community resource people who serve as mentors. The effective implementarion of enrichment requires a selection of students with input from a psychologist who can collate information regarding each child's range of abilities, skills, and interests; a compilation of materials, equipment, and teaching/learning aids; and a consultant who works with individual children or small groups as well as advises the regular staff and assists in evaluating each child's progress and recommending needed changes. Such a program, of necessity, is more expensive than one based mainly on either acceleration or segregation. The major criticism of enrichment programs, especially those which occur in the regular classroom is noted by Vernon, Adamson, and Vernon, who suggest that a policy for the provision of enrichment

> ...becomes a lottery in which the winners are those gifted children who, fortuitously, find themselves in the classrooms of teachers with the time and talent for devising stimulating and challenging additional activities for them; while other equally gifted children in other classrooms can be almost total losers.[16]

Regardless of the implementation to be utilized, it is essential that the program be viewed as necessary and important by the educators as well as by the community. The program needs to be concerned not only with the academic areas but also with other areas, including creative and productive thinking and leadership development. The program must be differentiated in teaching methodology as well as in programming approach, with emphasis on qualitatively different instruction. As Martinson advocates:

> The freedom to learn and achieve freely in all areas is of paramount importance to the gifted. Opportunities to write, compose, build, invent, analyze ideas, debate issues, produce creatively, and examine environmental and social problems should be open to these children.[17]

Educators must also recognize that the more individualization is successfully implemented in any teaching/learning situation, the less will be the need for special provisions for the gifted/talented or for any students who deviate from the average.

The role of the teacher within a program for the gifted/talented cannot be overemphasized. As Correll purports:

> The teacher is undoubtedly the key to effective programs for gifted and talented students. Successful programs have demonstrated that special preparation for teachers is mandatory. Teachers who have such preparation tend to be sympathetic toward these students and to provide them with appropriate learning opportunities. Research indicates that teachers with no special background are uninterested in and even hostile toward the gifted.[18]

In addition to the special training and the resulting changes in attitudes, Hoback and Perry identify the needs of teachers of the gifted, recognizing that some of the needs "are simply attributes of good teaching accentuated by the pressures of having gifted students."[19] These needs include:

> Skill in identification of giftedness in students. This includes understanding the many varieties of giftedness as well as techniques for eliciting expression from students.
>
> Flexibility and tolerance for the unexpected.... Joy in discovery is shared by teacher and student as is disappointment in failure.
>
> Secure and unthreatened personality. Having students who know more than the teacher and/or who are capable of correcting the teacher will cause uneasiness and even resentment in an insecure teacher. Teaching the gifted is no place for the defensive or timorous.
>
> Intellectual acumen.... The teacher must often learn along with the student. Understanding the process of how to learn is very important.
>
> Mature judgment and leadership in handling groups. Sensitive balancing of the needs of the groups with the needs of the individual, handling of inter-peer conflicts, and helping the gifted student acquire healthy social relationships is an important part of the teacher's task.
>
> Imagination and creativity. The unique needs of the gifted require some unusual approaches to some aspects of classroom management.[20]

It is also more characteristic of successful teachers of the gifted/talented that they have varied and wide-ranging cultural backgrounds, have talents or interests in at least one of the arts, are student-centered rather than subject-centered, and are systematic, organized, and enthusiastic about teaching -- especially about teaching the gifted/talented.

Regardless of the identification of characteristics and the acquisition of qualifications, teachers of the gifted/talented, as well as all educators, will continue to be challenged by these students for, as suggested by Martinson:

> The skills and potential of this group present a never-ending challenge to educators, for improved educational provisions result in student advancements which extend rather than reduce this challenge. In other words, excellent programs increase the deviation of the gifted from the average and increase as well their needs for special provisions.[21]

Ultimately, each student will be recognized as a child whose talents and abilities warrant special attention and individual educational plans. Developing and implementing a variety of alternative approaches and methods for children is preferable to determining that one single system is best and that all children will arbitrarily be assigned to that system and its particular form of instruction. As Alvino and Gourley stress:

> As curriculum options for thousands of gifted children expand, less and less will have to suffer the frustrations of a school environment that does not challenge their abilities. To the same degree, we will all be the beneficiaries of a wealth of human resources and potential heretofore untapped and unrealized.[22]

We, as educators, can play a major role in helping the gifted/talented to fulfill their "desire to know."

FOOTNOTES

[1] Richard McKeon, ed., Introduction to Aristotle (New York: The Modern Library, 1947), p. 243.

[2] Philip E. Vernon, Georgina Adamson, and Dorothy F. Vernon, The Psychology and Education of Gifted Children (Boulder, Colorado: Westview Press, 1977), p. 1.

[3] Marsha M. Correll, Teaching the Gifted and Talented (Bloomington, Indiana: The Phi Delta Kappa Educational Foundation, 1978), p.7.

[4] Vernon, Adamson, and Vernon, Psychology and Education, pp. 8-9.

[5] David J. Kuhn, "Giving the Gifted Their Due," The Science Teacher 46 (February 1979): 32.

[6] T. Ernest Newland, The Gifted in Socioeducational Perspective (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976), p. 33.

[7] Sidney P. Marland, Jr., Education of the Gifted and Talented (Washington, D.C.: U.S. Office of Education, 1971).

[8] John Hoback and Phyllis Perry, "Common Sense About Educating the Gifted and Talented," Educational Leadership 37 (January 1980): 346.

[9] Ruth A. Martinson, The Identification of the Gifted and Talented (Reston, Virginia: The Council for Exceptional Children, 1977, p. 127.

[10] James J. Gallagher, Teaching the Gifted Child, 2nd edition (Boston: Allyn and Bacon, Inc., 1975), p. 19.

[11] Newland, Gifted in Socioeducational Perspective, p. 144.

[12] Vernon, Adamson, and Vernon, Psychology and Education, p. 142.

[13] Ibid., p. 143.

[14] Hoback and Perry, "Common Sense," p. 347.

15 Ibid.

16 Vernon, Adamson, and Vernon, Psychology and Education, p. 173.

17 Martinson, Identification, p. 136.

18 Correll, Teaching, p. 36.

19 Hoback and Perry, "Common Sense," p. 347.

20 Ibid., pp. 347-348.

21 Martinson, Identification, p. 2.

22 James J. Alvino and Theodore J. Gourley, "The Challenge of Our Gifted Children," Teacher 95 (December 1977):48.

BIBLIOGRAPHY:

Alvino, James J. and Gourley, Theodore J. "The Challenge of Our Gifted Children." Teacher, 95:4 (December, 1977), 45-48.

Correll, Marsha M. Teaching the Gifted and Talented. Bloomington, Indiana: The Phi Delta Kappa Educational Foundation, 1978.

Gallagher, James J. Teaching the Gifted Child. 2nd ed. Boston: Allyn and Bacon, Inc., 1975.

Hoback, John and Perry, Phyllis. "Common Sense About Educating the Gifted and Talented." Educational Leadership, 37:4 (January, 1980), 346-350.

Kuhn, David J. "Giving the Gifted Their Due." The Science Teacher, 46:2 (February, 1979), 32-34.

Marland, Sidney P., Jr. Education of the Gifted and Talented: Report to the Congress of the United States by the U.S. Commissioner of Education. 2 vols. Washington, D.C.: U.S. Office of Education, 1971.

Martinson, Ruth A. The Identification of the Gifted and Talented. Reston, Virginia: The Council for Exceptional Children, 1977.

McKeon, Richard, ed. Introduction to Aristotle. New York: The Modern Library, 1947.

Newland, T. Ernest. The Gifted in Socioeducational Perspective. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976.

Vernon, Philip E.; Adamson, Georgina; and Vernon, Dorothy F. The Psychology and Education of Gifted Children. Boulder, Colorado: Westview Press, 1977.

All Children Are Gifted

by

Virginia F. Ritter and John M. Ritter
University of Northern Iowa

All children are gifted! Each child's talents are different from those of all others. Children may inherit talent from relatives now living as well as from those relatives who lived thousands of years ago. Thus, each child carries his own complex heritage. Each child's talents also may be affected by the opportunities in his environment.

Albert Einstein, the celebrated physicist, was a gifted person but he did not adjust well in all learning areas. His thoughts carried him are into our universe, allowing him to solve numerous problems that eluded other physicists. But some of his teachers found him to be a slow learner even when he was confronted with relatively easy tasks. What might he have contributed to the school environment if his talents had been recognized and respected?

As a teacher observes and listens to the children in the classroom, he/she realizes that each child in the room is truly gifted. The gift may be a smile that lights up the whole room: a gift of verbal expression which in our push for "quietness" may be squelched; an imaginative mind which dares to dream; a peace-making attitude which brings about more understanding among his peers; or an enthusiasm for living which may transcend even the moodiest classmate.

However, in our current quest for specialization, we look for ways of narrowing the field to classifications such as geniuses. But what is a genius? It may be somehone who can walk through the woods and hear sounds of nature that no one else can hear. He may then be able to express what he hears in such a way that even the tired businessman may share this experience through prose, poetry, music or painting. He may be able to find ways to solve our energy problems or bring about peaceful solutions to world problems.

Is a genius a person who scores regularly at the top or within the highest percentile on a battery of validated intelligence tests? There are very few such persons. Even if there were, many probably would not be socially as useful as highly rated specialists often are. Many who succeed in the arts, sciences, or technologies which require a high level of creativity, are considered to be geniuses although they may have only one string for their bows to perform on. Those who are truly geniuses, as defined, often are creative but lonely.

In fact, high scores on intelligence tests may be a handicap for many. If the child is a rapid problem solver, he may have few friends; others may be embarrassed by his lightning-like performance. He may prefer to play difficult mental games rather than do the worksheets assigned to the entire class. Or he

may even demonstrate that he can answer difficult problems more rapidly than his teacher can.

But most children have mixed abilities, both physical and mental. Many may be slow, but anxious to learn. Children who apply their talents diligently may achieve educational goals beyond those who may have more measured talent.

It is best to assume that all students are gifted in some special way. The teacher must meet the learner on his special territory and the prospective learner must feel that a satisfactory and pleasant congruence has occurred. Generally the meetings of teachers and prospective learners are most happily together and ready for the learning to begin if they meet on the pupils' turf. in this mode, both are likely to be pleased that each has given a little to the other. For both, the light has begun to shine.

During the early years in school, each child must build a structure of processes which allow him to live and grow within the learning environment that surrounds him. In the self-structured and very personal environment, he is able to develop a self-concept which somehow allows him to perceive the changed environment and adjust to the new and more complex setting. The old concept will not do if he is to reach his potential.

Individualizing for Identification of the Gifted

There are thirty children in a classroom, all with different talents. The entire group is assigned a lesson in a textbook, possibly a reader. The teacher introduces the ten new words to the class. At least, these words are supposed to be new to "sixth graders!" After a set length of time, there is a general discussion of the content of the story and the usual six or so children respond, perhaps in a superficial manner. Is the teacher than able to evaluate the learning of the class and make judgments about their progress? Is it easy, or even possible to identify the unique gifts of all the children in this setting?

Of course it isn't! Each child has secrets within him that he feeds every day. Something excites him on the way to school; a squirrel dashes across in front of the bus and arrives safely. One of his secrets may be that he loves animals and their ways of living. If the particular story read has been about an animal family, he would have been filled to the brim with anecdotes based on his experiences in the park or during the past vacation. Would the teacher have learned more about the child if she had allowed him, even encouraged him, to read from a book of his choosing? Is it really necessary for every child to do the same assignment?

Will a variety of standardized tests which are designed to show progress or failure in relation to a generalized body of knowledge give the teacher an accurate determination of giftedness throughout a class of thirty? Will it measure creativity, sensitivity, and humaneness which could possibly be the greatest gifts in a time when the projected needs for specified cognitive content are so undetermined? Never before has there been such a need to guide children beyond mere memorization and comprehension to synthesis and evaluation,

described in Bloom's Taxonomy of Educational Objectives.[1] Today's classroom must be individualized so well that, as teachers, we really know our students and their most effective patterns of learning, realizing that cognitive and affective patterns of learning, realizing that cognitive and affective learning are equally important.

Strategies for Opening the Classroom for the Gifted

The most important strategy is respect for learning and growing. This requires an openness on the part of the teacher to new ideas and divergent behaviors. It necessitates that a teacher's role by one of guidance, acceptance, and inquiry right along with the students.

> The instructor should emulate Socrates and teach in the hypothetical mode so that he and the student might coexist in a more cooperative position with respect to the transmission and discovery of knowledge. And the student should be encouraged to work things out for himself, to orgnize evidence so that he is able to go beyond it to novel conjectures and insights, and to participate in an active dialogue with his teacher.[2]

This can apply to the kindergarten child who rolls his toy cars down an inclined plane as we-l as to the sixth grader who tries a more advanced experiemtn in physics. The task of the teacher is to guide the learner in a was that acknowledges Piaget's stages of intellectual development (pre-operational, concrete operational, or formal thought).

Underlying this openness in Bruner's famous hypothesis that "any subject can be taught effectively in some intellectually honest form to any child at any stage of development."[3] If a child is to approach his potential in giftedness, in whatever area, he must be allowed and encouraged to pursue topics of vital concern to him personally. This would assure his active participation and a cooperative hypothetical mode between the teach and student.

> The individual is best viewed neither as a passive recipient of information nor as a bundle of stimulus-response connections. Rather he should be regarded as an active participant in the knowledge getting process, one who selects and transforms information, who constructs hypotheses and who alters those hypotheses in the face of inconsistent or discrepant evidence.[4]

For example, the kindergartener may alter the incline of the plane to see if the cars will go down more rapidly or the sixth grader may need to do additional reading on the distribution of molecules.

The key to all this for the classroom teacheris, in addition to openness, a spirit of inquiry and an intellectually stimulating classroom environment. How does a teacher do this with a class of thirty students? Simply by recognizing that the room is filled with teachers! As students inquire and hypothesize, they begin to learn that they have a lot to share and even more to learn. The teacher's job almost becomes one of getting out of the way and letting them learn.

Individualized reading will become a focal point, along with pupil-teacher conferenes, at all times of the day and at various places in the room, even extending to the library. More money will need to be spent on trade books and less on worksheets, because full-class assignments will be almost non-existent.

Of course there will be overall themes, at times, to which all class members will respond, but in their own individual ways and with the results that the uniqueness of each person will be respected and recognized.

Opportunities for Expression

Why some bright youngsters do poorly in school is a question of great concern because we want each child to develop to his maximum ability. Much evidence points to the belief that there is a relationship between positive self-concept and high achievement and negative self-concept and underachievement. The determining factor seems to depend upon how the child perceives that significant others view him.

A classroom open to real learning must include a wide variety of opportunities for children to express themselves in all areas and in an environment in which they can take risks, knowing that their efforts are respected and valued. There is not pressure to compete with others but rather to grow and develop to his own fullest measure.

Areas in which each child must have opportunities for expression are:[5]

1. Physical well-being (athletic ability, physical energy, and physical health);
2. Scholarship (mathematical abilty, scholorship, scientific ability, and self-confidence-intellectual);
3. Estheticism (originality, artistic ability, speaking ability, writing ability, expressiveness, and acting ability);
4. Pragmatism (self-control, independence, conservatism, practical mindedness, and perseverance);
5. Technical-scientific ability (mechanical ability, artistic ability, scientific ability, and research ability);
6. Sociability (leadership, popularity with opposite sex, sociability, aggressiveness, cheerfulness, self-confidence, popularity);
7. Sensitivity to others (understanding of others, sensitivity to the needs of others, cheerfulness, and sense of humor).

We need to guide each child in the classroom to use his talents fully so that he will be productive for himself as well as for society.

It is significant that Bruner and his collaborators chose to call their summary statements of belief, Beyond the Information Given because a person

who has learned to perceive with clarity, thoughtfulness, and inquiry will not only achieve the knowledge he desires or needs, but will usually go far beyond what he might have hoped from the information given only. This is an element of learning that is creative in nature.

Reading Appropriate for Gifted Individuals

If we value individuals enough to treat each person as a gifted individual, then we must value the person's right to make judgments. This would apply especially to the opportunity and/or responsibility to make decisions about reading materials. Is it fair for teachers to assume that students will learn only if they read prescribed materials with accompanying workbooks and tests?

Learning is exciting and challenging and most students want to learn, but it is indeed an individual matter and cannot be standardized to the point that one size (or series) fits all. Rather it is essential that each student be given the privilege or responsibility to pursue interests and needs that are uniquely his.

So, what readings are appropriate for gifted individuals? Simply, whatever they choose, accompanied by continuous sharing with the teacher, parents, principals, aides, and classmates. Motivation and evaluation are built-in factors when the students know that their choices are valued to this extent. An extra benefit is the resulting attitude that reading is enjoyable, purposeful, and an important part of life now as well as in the future.

But how can you do this when you have thirty students in your classroom? How will the administrators, parents, and next year's teachers feel about this? If we do our job well, the reception of the progress of these students is one of the pleasures and eagerness to help them continue this excitement in learning. But it is not an easy task!

The first criterion is a teacher who is excited about reading, learning, and teaching. He/she must be confident that children can make important decisions and that they will want to share. The teacher must provide a responsible classroom environment with inviting physical arrangements, such as carpeted areas, pillowed corners, bathtubs, specially decorated areas, and enough large blocks of time for reading and sharing.

The supply of books must be very large. The sources will need to be as wide and varied as humanly possible and this supply must change often. Of course, students must be consulted about the topics of books to be selected. Often they may be the ones to go on the selection trip.

In the classroom, each student understands that he is reponsible for selecting and reading a book of his choice. The teacher is not sitting idly by; he/she is interacting, questioning, making suggestions, and listening to the discussions among the children who are reading on similar topics. He/she is having a conference with each student at least two times a week. This conference is the "giftedness" of each student, his/her real interests, concerns, strengths and his weaknesses. From these cues he/she can help the student build effectively toward life-long reading and learning.

But what about skills? That's the really exciting part! The teacher does not put every child through a training session on skills he/she already knows; rather there are individual or small-group temporary sessions on skills that are needed, as identified in the individual conferences. Time is not wasted on the teaching of skills already learned but rather active acquisition of skills needed.

Real learning comes alive if the teacher truly respects the developmental level of students and their right to make decisions and judgments about their own learning. What better motivation for life-long learning could there possibly be? And what better way could there by to identify and foster the "giftedness" of each individual in the classroom?

Inquiry Activities for Gifted

Because we assume that all children are gifted, and that all mental and physical qualities can be modulated to be useful in the learning process, we are pressed to assume that there are suitable inquiry designs or patterns enough to go around in every school environment. In fact, most learners will find a variety of inquiry activities at every achievement level of inquiring and if both teacher and students cooperate, there will be readiness activities leading to successful problem solving. The trick is to make readiness a part of the inquiry project. As the inqury project calls for higher levels of readiness elements, the net result may be higher level problem solutions.

Let us suppose there is a painting hanging in the room. The learners are making individual judgments about the artist's purposes. Their actions are analyses reflecting their readiness for artistic criticism. The predominating colors are orange, brown, gray, red, blue and green. It is a mountain scene at the end of summer. Some responses from the students may be, "May we try to paint a picture? How does the painter make his colors? Is the scene from a real place? Are these stories about the people who once lived in places like these?"

The alert teacher will introduce methods of problem solving. Both the inductive and the deductive modes of problem solving will be used in the daily activities in each subject area.

All learning is the result of an inquiry or some related inquiries. A classroom filled with children may wish to publish a newspaper. Together they decide what kinds of news they wish to publish and how frequently they wish to publish. They appoint or elect an editor, a number of reporters, and columnists. They make decisions about who will seek out news items about athletics, drama, announcements of interest to all, schedules and other information from the principal's office. Reporters will keep in touch with their special news sources daily. How will the copy be reproduced and where will the funds come from? More questions like these will arise daily until the staff learns best how to do its job. The science reporter stops by the laboratories and engages in conversation that reveals what experiements are in progress, or have been completed. Another reporter will get the information about an air flight over the city and how

learners were able to identify landmarks on the ground. The librarian has a list of new books available for those with common interests.

All learning springs from inquriies that provide answers to questions. Alert teachers will seek out the general and special needs of the learners and will suggest inquiry models for each need.

Teachers for the Gifted

Education is changing so rapidly that the elders of our society frequently do not recognize the newer terms, methods or even goals which pass as schooling. Stimulus and response patterns are no longer acceptable concepts in a definition of the learning process. Knowledge is more than the remembering of the high points of yesterday's lecture. Students are no longer expected to be passive listeners. Instead, they are better described when functioning in the Socratic mode.

Teachers of the gifted must know how to use the new tools for learning and teaching. Examples of these are access to recent theories and processes; the magnitude of research and writing; and the easy access that learners have to new and relevant research.

All teachers must realize that teachers and learners must use tested inquiry procedures as they create new conceptions from the mass of information that results from tested patterns of thinking and intellectual growth within and affected by modern social patterns which tend to allow all learners to be more efficient in the acquisition of knowledge and concept structuring, as Piaget and Bruner agree, often beyond the information given.

Any teachers who aspire to create the needed concepts for modern learning styles must also relate to the student as an equal, and to function as equals as they create new knowledge with our new tools. These new tools are perception, an inferential intuitive process; values and needs as motivating essentials; conceptualization; hypotheses; perceptual cues that help expand understanding; classification essential to thinking and knowing; and differential discrimination, which describes how things differ from one another.

Inherent in every classroom, in every activity, would be the use of these tools whether it be in creative writing, problem solving, predicting future events, perceiving new ideas or structures, classifying and making value judgments about every-day events.

The Gifted -- Our Leaders of Tomorrow

> The principal goal of education is to create men who are capable of doing new things, not simply of repeating what generations have done--men who are creative, inventive, and discoverers. The second goal of education is to form minds which can be critical, can verify, and not accept everything they are offered. The great danger today is of slogans, collective opinions, ready-made trends of thought. We have to be able to resist individually, to criticize, to distinguish between what is proven and what is not. So we need

> pupils who are active, who learn early to find out by themselves, partly by their own spontaneous activity and partly through material we select for them; who learn early to tell what is variable and what is simply the first idea that comes to them.[6]

As we learn more and more about our universe, as we create technologies that structure new models for our livng and working environments; and as our world grows smaller, we are slowly becoming aware that we are in dire need of an overhaul of our educational objectives and structures. No longer can be sustain our nation and know so little about the remained of the earth and its inhabitants. Even our universe, as we know it, is speedily changing in ways that we do not understand. The old "read and recite" model for schools has long ago failed us and is now useful only in limited ways. The textbook is frequently too soon out of date.

We need to go into the world to learn. We need to meet and cooperate with all the peoples of the world for understanding. We must make friends of those who are foreign to most of us. We need to open our schools so that seekers of all kinds of knowledge may learn and benefit from the educational setting, we must be free to go out to investigate our natural environment, and we must recognize that each learner is talented in special and unique ways!

Let all of their lights shine throughout the universe!

* *

If a man has a talent and cannot use it, he has failed. If he has a talent and uses only half of it, he has partly failed. If he has a talent and learns somehow to use the whole if it, he has gloriously succeeded and won a satisfaction and a triumph few men ever know.

Thomas Wolfe
The Web and the Rock

Footnotes

[1]Benjamin S. Bloom, Editor, Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain (New York: David McKay Company, Inc., 1955).

[2]Jerome S. Bruner, Beyond the Information Given (New York: W.W. Norton and Company, 1973), p. 397-8.

[3]Ibid., p. 378.

[4]Ibid., p. 379.

[5]Ira J. Gordon, Human Development, A Transactional Perspective (New York: Harper & Row, 1975), p. 388.

[6]Richard E. Ripple and Verne N. Rockcastle, Editors, Piaget Rediscovered (New York: School of Education Cornell, 1968), p. 5.

References

Bloom, Benjamin S., Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain. New York: David McKay Company, Inc., 1965.

Bruner, Jerome S., Beyond the Information Given. New York: W. W. Norton and Company, 1973.

Elkind, David., Children and Adolescents. New York: Oxford University Press, 1974.

Gordon, Ira J., Human Development, A Transactional Perspective. New York: Harper & Row, 1975.

Hendrick, Joanne., The Whole Child. St. Louis: The C.V. Mosby Company, 1980.

Lindbert, Lucile and Swedlow, Rita., Early Childhood Education, A Guide for Observation and Participation, Second Edition. Boston: Allyn and Bacon, Inc., 1980.

Ripple, Richard, E. and Rockcastle, Verne N., Editors, Piaget Rediscovered. New York: School of Education Cornell, 1968.

Some Suggested Books For Students

Ames, Lee J., Draw 50 Dinosaurs and Other Prehistoric Animals. New York: Doubleday & Company, 1977.

Ames, Lee J., Draw 50 Airplanes, Aircraft and Spacecraft. New York: Doubleday & Company, 1977.

Andrist, Ralph K., Heroes of Polar Exploration. New York: American Heritage Publishing Company, 1962.

Some Suggested Books For Students (Continued)

Becker, Joyce, Jewish Holiday Crafts. New York: Bonim Books, 1977.

Boyd, Mildred, The Silent Cities, Civilization Lost and Found. New York: Criterion Books, 1966.

Cummins, Dorothy Berliner, All About the Symphony Orchestra. New York: Random House, 1961.

Cottrell, Leonard., Digs and Diggers, A Book of World Archaeology. New York: Doubleday & Company, 1977.

Cottrell, Leonard, Crete: Island of Mystery. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965.

Foreman, Michael, War and Peas. New York: Thomas Y. Crowell Co., 1974.

Friedman, Joy Troth, What's So Important About ... New York: Grosset & Dunlap, 1972.

Gallant, Roy A., Exploring the Universe. New York: Doubleday & Co., Inc., 1956.

Gallant, Roy A., Exploring the Planets. New York: Doubleday & Co., Inc., 1967.

Gettings, Fred, The Meaning and Wonder of Art. New York: Golden Press, 1963.

Glubok, Shirley, Editor, Discovering Tut-ankh-Aments Tomb. New York: The Macmillan Company, 1968.

Goode, Ruth, People of the First Cities. New York: Macmillan Publishing Company, 1977.

Green, Norma, The Hole in the Dike. New York: Thomas Y. Crowell Company, 1974.

Hyde, Margaret O., Exploring Earth and Space. New York: McGraw Hill, 1967.

Isadora, Rachel, Ben's Trumpet. New York: Greenwillow Books, 1979.

Iverson, Genie, I Want To Be Big. New York: E.P. Dutton, 1979.

Janosh, Dear Snowman. New York: The World Publishing Company, 1969.

Kreischer, Louis, String Art. New York: Crown Publishers, 1976.

Krieger, David L., Letters and Words. New York: Young Scott Books, 1969.

May, Julian, Before the Indians, New York: Holiday House, 1969.

Some Suggested Books for Students (Continued)

Savitz, Harriet May, Wheelchair Champions, A History of Wheelchair Champions. New York: Thomas Y. Crowell, 1978.

Weisgard, Leonard, The First Farmers in The New Stone Age. New York: Coward-McCann, 1966.

Weiss, Harvey, Games & Puzzles You Can Make Yourself. New York: Thomas Y. Crowell Company, 1976.

The Child Thinks -- Divergently

by

Cynthia Smanski Sunal
West Virginia University

How does it feel when you eat cotton candy? "Squeezy and gooey." "Sticky." "Messy." "Soft." "Yummy and pink." "Mad, because it just goes away so fast in my mouth." This is what six-year-olds think. How would you answer the questions?

Free discussion of questions such as the above can encourage the development of divergent thinking abilities. These abilities enable a person to provide a variety of responses in which the resulting product is not wholly determined by the information presented. Training appears to have a positive effect on their development. When the individual becomes capable of divergent thinking, this capability will generally be stable over time, although a child's expressions may be different from that of an adult. (Torrance and Torrance, 1973).

Divergent thinking, or production, abilities vary with the interests and capabilities of people. Inventors, painters, or composers generally engage in the divergent production of figural content; a painting, a machine, a musical score. Divergent production of symbolic content is of greatest use to mathematicians while semantic content (verbal-ideational) is most evident among creative writers and scientists (Guilford, 1968). Figural, symbolic, and semantic content reflect the diversity of paths which may be taken in divergent thinking.

The most direct contribution to creativity is made by divergent thinking abilities. Guilford (1959) has suggested that most of the aptitude factors identifiable as belonging in the category of creativity can be classified in a group of divergent thinking abilities. This grouping emphasizes searching activities with freedom to go in different directions. In preschool and primary grades children the divergent thinking process has this emphasis. It is characterized by fluency, a continuing flow of associated ideas. The flow is often so great that the young child's mind seems to be vibrating with new ideas. (Guilford, 1959).

Development

Divergent production of semantic content is of particular importance in young children. In the years through age nine, language is mastered, the capability for thought is developed, and communication of ideas accelerates. This growth can be related to the divergent production of semantic content.

There are five hierarchically-ordered constituents of the divergent production of semantic content. These include the production of semantic units, classes, relations, systems, and implications. Semantic units represent the first capability attained by young children. Semantic implications are the most complex level of production.

Divergent thinking involving semantic units is called ideational fluency. It is the ability to produce many elementary ideas appropriate in meaning to given requirements. Activities for young children which encourage the divergent production of semantic units may be described as follows:

1. Given one or more attributes of a class, list members within the class. For example, "things round" could include a bulb, hill, greenhouse, raisin, peach, button, or Volkswagen. Other classes which may be used are: people in my family, things I like, and ways to be nice to another person.

2. Given requirements, suggest obvious conclusions. "What would happen if...you get a haircut today?, the school bus is late?, the flashlight stops working?"

3. Exploring consequences. Given some highly unlikely change, what would be its effects? Encourage many responses. "What would happen if...somebody built an apartment house next to your house?, a helicopter landed on the playground?"

   "What would happen if a dinosaur came to school?"

   "I would pet it."
   "I would feed it grass."
   "I would ride on it."
   "I would cuddle with it."
   "I would show it to my sister."
   "I would take it to the pet store."
   "I would scare big kids with it."
   (Four-year olds)

4. Suggest realistic uses for a common object such as a paper clip or a rubber band. Ask children to demonstrate or act out their suggested uses where possible.

Spontaneous flexibility is the divergent production of semantic classes. This is the ability to produce a variety of class ideas appropriate to a given idea. The following activities work with the production of semantic classes.

1. Given a list of similar objects, form a variety of subgroups. Stress the number of subgroups, encouraging regrouping. Similar objects can include a set of coins, stamps, kitchen implements, clothes, or shells.

2. Alternate uses for objects can be encouraged. Children are given the name of a common object, such as a table, and its common use is discussed. Then, they are asked to suggest uncommon uses. Each uncommon use will almost always fall in a different class of uses. "What are some different ways to use a table?"

"To sleep on."
"To run on."
"To draw on."
"To pound nails into."
"To put in the lake and float on."
"To slide on."
"To stand and sing on, so everyone can see you."
"To jump on."
(Five-year olds)

Divergent production of semantic relations is called associational fluency. A variety of relations, or analogies, to given information are produced by the individual. Some examples of activities which encourage development of this ability are:

1. The use of simile insertions such as the following.

Some weather is like_____because_____.
Some dogs are_____because_____.
All flowers are_____because_____.
All adults are_____because_____.

"All adults are big because they eat a lot."
"All adults are funny because they joke."
"All adults are weird because they're adults."
"All adults are nice because they are soft."
(Eight-year olds)

2. Suggesting words with meanings which are about the same as that of a given word. Wet, friend, food, and game are examples of words which may be used to start off the activity.

3. Using personal analogies such as "What if you were... a flower blooming?, a child with lots of freckles?, in the circus?, a child with fifty pennies?" Or, ask questions such as the following. "How does it feel when you...eat cotton candy?, run very fast?, wear new shoes?"

Expressional fluency involves the divergent production of semantic systems. This is the ability to organize elementary ideas into complex ideas. Examples of activities involving this ability include:

1. Give an eliciting question. Then, proceed to concept formation through enumerating, grouping, and labeling into larger ideas. Use questions such as..."Can we make a rule about whether we should use the bathroom if someone is already in it?"

2. Have students generate good questions about objects they are studying. "What is really important to know about...an easter egg? a leaf?, a fort?, Halloween?

"What is really important to know about the rain?"
"Which way does it come down?"
"How does the rain get into the clouds?"
"Can we make rain?"
"How come the desert doesn't get a lot of rain?"
(Seven-year olds)

Divergent production of semantic implications is called elaboration. It is characterized by the ability to produce many antecedents, concurrents, or consequences of given meaningful information. Activities which stress the use of this ability include:

1. Presenting children with a discrepant event, for example, a story in which children are much larger than adults, growing smaller as they grow older. Encourage the students to produce many possible explanations.

2. Planning elaboration. Given a certain end, the children are to produce the steps needed to complete the plan. Use questions such as: "How can we finish building our block city?" "How should we pass out the party prizes?" "How can we make sure we all come inside when it is lunchtime?"

Conclusion

In divergent production, the goal is to produce a variety of ideas, all of which are logically possible from the information given. Most everyday problems involve divergent thinking. Yet Guilford (1968) suggests our educational practices have encouraged students to conventional solutions and convergent answers. If children are to become capable of successfully coping with the problems they meet, a direct attempt to develop the production of divergent thinking must replace conventional practices. In making this attempt, educators need to ask questions of themselves as well as of children. The first question might be "What does thinking feel like?"

References

Guilford, J. P. Personality. New York: McGraw-Hill, 1959.

Guilford, J. P. The Nature of Human Intelligence. New York: McGraw-Hill, 1968.

Torrance, E.P. and Torrance, J. P. Is Creativity Teachable? Bloomington, IN: Phi Delta Kappa Educational Foundation, 1973.

Promoting Decision Making for the Gifted

by

Bruce Frazee
Trinity University

Introduction

Whether we are aware of it or not, we make decisions daily which affect our lives. It seems apparent that teachers must promote the opportunity for students to practice decision-making skills. Learning the process of decision making means practicing certain skills in order to apply them to personal decisions. If decision-making skills are applied, the likelyhood that the outcome of the decision will be satisfying increases.

Rationale for Teaching Decision Making

Teaching decision-making skills to the gifted is important for several reasons. According to La Raus and Remy (1978), teaching decision-making skills helps students in coping with the multitude of decisions they face daily and will continue to face throughout their lives. Students can learn how to be competent decision makers just as well as they can learn to be competent doctors, lawyers, or politicians. Cassidy and Kurfman (1977) believe that teaching students only fact-finding skills will prepare them inadequately for life in the future. This is especially true for the gifted if they are to become the leaders of tomorrow. Toffler (1974) points out that children need early experiences in the decision-making process to help them understand that there are alternative futures. Finally, Glasser (1969) states that we must teach children decision making, for the inability to decide stems from a total lack of training in making and implementing decisions.

Providing opportunities for gifted students to make decisions ought to be a major goal in a gifted program (Boston, 1975 and Torrance, 1965). This is especially true if students are to become self-directed learners. According to Sato (Note 1), one special need of gifted students is the opportunity to make self-directed decisions. Yet, he asserts, this need has not been attended to in the past.

According to Tuttle (1978), many gifted programs do not provide sequence, direction, or ultimate goals. However, systematic development of skills and activities are necessary elements in a gifted program. For learning to take place some structure is needed in the curriculum for the gifted (Gallagher, 1975; Kaplan, 1977; Renzulli, 1977; and Torrance, 1965). Gallagher (1975) states that teachers must sequence events so gifted students can experience stages of thought which facilitate independent discovery of ideas.

Teaching the decision-making process likewise requires structure. Students must learn how to apply higher-ordered thinking skills, such as (1) stating

problems or decisions to be made; (2) identifying alternatives or choices; (3) thinking about probable consequences or outcomes; (4) analyzing values or consequences; and (6) making a choice or decision. The writings of Gallagher (1975) and Kaplan (1977) emphasize process in teaching the gifted as a higher priority when compared to product.

A Model for Developing Decision-Making Skills

Figure 1 presents a visual model which sequences and structures the various thought processes and skills involved in decision making.

Insert Figure 1 about here

Introduce the decision-making process by discussing the fact that life is full of choices and that we have to make decisions every day. Some decisions are more important than others. Ask students to volunteer some decisions they have made recently. At this time define decision making as a choice between several alternatives. Then let the students state some alternatives to recent decisions they made. Permit the students to think about and state problems which involve dilemmas and decisions. Ask questions which stimulate thinking and discussion about the consequences of the various alternatives the students suggested.

Discuss the concept of value (personal importance) and the idea of priority (order of importance) since many times decisions have to be made from several choices. Students need to learn how to prioritize in order to identify what is most important to least important in their values before applying the decision-making process.

After the initial discussion, the model can be presented on an overhead projector or chalkboard to demonstrate its use. The rectangle space provides a place for students to identify the problem or dilemma. Each of the circles represents a space to list alternatives. The lines from the circles provide an area to list consequences of each alternative. Demonstrating the use of the model is easier if the teacher chooses a student-given situation which involves two alternatives. An example concerns a decision about smoking Alternative A is to smoke and alternative B is not to smoke. Students state consequences of alternatives A & B, then weigh the alternatives and consequences according to their values and information. By graphically illustrating the decision-making process, students become more aware of the reasons for their decision. By rank ordering consequences of various decision, students confirm the reasoning behind the chosen alternatives. A space is provided for students to write in their choice. The model can be duplicated and distributed for use in discussing many other issues or dilemmas.

The use of this model provides an opportunity for students to visualize and write the decision-making process. The model facilitates the learning of the decision-making process and provides a cognitive map to actually engage

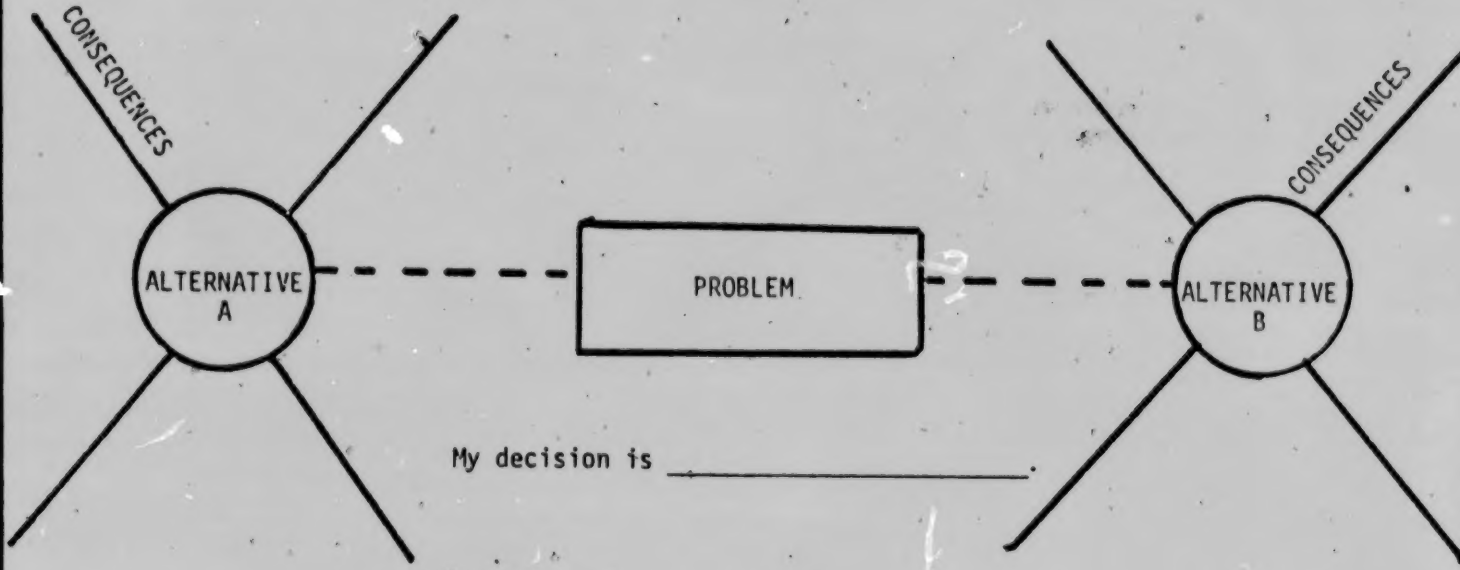


Figure 1 Decision-Making Model

gifted students in thinking through alternatives and consequences before making a decision. More circles can be added to the model when decisions require choices between more than two alternatives. In many instances, gifted students will modify the model with their own creative geometric figures. After students master the process employed through the use of the model, its use is optional.

Enrichment Activities for Promoting Decision Making

Another area where the model is particularly useful is in discussion of moral dilemmas. Vare (1979) states that the gifted need opportunities to discuss moral issues in a structured situation. Gifted students need to question, discuss, and make decisions about the many moral dilemmas they now face and will continue to face in their environment. This model provides guidance during the discussion while emphasizing the processes used in making a moral decision. Following are some suggested activities for gifted students to discuss while using the decision-making model. These activities have been divided into categories of: citizenship, moral dilemmas, contemporary issues, community concerns, and global awareness. Many creative possibilities exist in these categories for promoting decision-making skills.

Citizenship discussions are vital to the survival of democracy. Following and deciding what candidates to support in national, state and local elections is one possible activity. Also, gofted students may want to make decisions about the characteristics of leaders and to rank order their choices. Identifying and choosing qualities of good citizens is another worthwhile activity. After decisions have been made, mock elections, role playing, and simulation can be developed by the gifted students.

Moral dilemmas, especially those about which students eventually need to make a decision, stimulate lively discussion. Issues and dilemmas concerning stealing, honesty, ageing, responsibility and drugs are but a few of the many possible topics. Deciding about the alternatives and consequences of these topics in a hypothetical situation before students are confronted with these dilemmas in real life is a valuable experience. Providing an opportunity for the gifted to define and write dilemmas for other students to ponder is a good experience for gifted students.

Contemporary issues and events are areas that gifted students are usually aware of and desire more information about. Gifted students would benefit from studying and deciding about SALT II, abortion, Iran, energy, inflation and other nationally important events and topics. Gifted students are perceptive about these events because of television, radio and newspapers. These issues provide an opportunity for studying media, propoganda and current events.

Within every community there are specific conerns about which gifted students can make decisions. Topics such as zoning, strikes of city employees, laws, and the future of the community can be researched. Students can decide about special projects they might like to do for the community or surveys they might like to conduct.

Gifted students need to know how to apply knowledge universally. Such global awareness is an important area in which to apply decision-making skills because of the ability of the gifted to see beyond the immediate. Decisions about wars, nuclear power, hunger, overpopulation, and underdeveloped nations can stimulate the gifted while using higher-ordered thought processes. Gifted students can make decisions about the future of the world when role playing United Nations sessions.

Conclusion

Promoting decision making for the gifted can provide new and exciting strategies for programs. Teaching the decision-making process enables learners to become self-directed. Thinking skills are enhanced when the decision-making process is stressed. The structure of the decision-making model provides the initial guidance needed for developing decision-making ability of gifted students. To make curriculum relevant to the gifteds' needs, students need more opportunities to make their own decisions. First, however, they must learn the process of making rational decisions. Some select sources which provide open-ended decision-making activities for challenging the gifted follow.

* *

Full many a gem of purest ray
serene
The dark unfathomed caves of
ocean bear;
Full money a flower is born to
blush unseen,
And waste its sweetness on the
desert air.

Thomas Gray

Selected Bibliography

Allen, Rodney, et al. Deciding How to Live on Spaceship Earth. Evanston, Ill.: McDougal, Little and Co., 1974.

Casteel, Doyle J. Learning to Think and Choose. Santa Monica, Cal.: Goodyear Publishing Co., 1978.

Dodder, C. and Dodder, B. Decision Making. Boston, Mass.: Beacon Press, 1968.

Elder, Carl. Making Value Judgments: Decisions for Today. Columbus, Ohio: Charles E. Merrill Publishing Company, 1972.

Fisk, Dorothy. Discussion: A Strategy for Discovering Values. Gifted Child Quarterly, 20: 105-108, Spring, 1976.

Gelatt, H.B., et al. Deciding. New York: College Entrance Examination Board, 1972.

Gelatt, H.B., et al. Decisions and Outcomes. New York: College Entrance Examination Board, 1973.

Hersh, Richard, Paolitto, Diana, and Reimer, Joseph. Promoting Moral Growth. New York: Longman, 1979.

Kurfman, Dana G., editor. Developing Decision-Making Skills. 47th NCSS Yearbook. Washington, D.C.: National Council for the Social Studies, 1977.

La Raus, Roger and Remy, Richard. Citizenship Decision-Making Skill Activities and Materials. Menlo Park, Cal.: Addison Wesley Publishing Co., 1978.

O'Fahey, et al. Deciding How to Live as Society's Children. Evanston, Ill.: McDougal, Little and Co., 1975.

Schlichter, Carol. The Multiple Approach to the World of Work. Roeper Review, 2:17-20, December, 1979.

Reference Note

1 Sato, I. Personal communication, March 27, 1980.

References

Boston, B.O. Gifted and talented: developing elementary and secondary school programs. Reston, Va.: ERIC/CEC, 1975.

Cassidy, C.W. & Kurfman, D.G. Decision making as process and purpose. In D.G. Kurfman (Ed.), Developing decision-making skills, 47th Yearbook. Washington, D.C.: National Council for the Social Studies, 1977.

Gallagher, J. Teaching the gifted child. Boston: Allyn and Bacon, 1975.

Glasser, W. Schools without failure. Harper & Row, 1969.

Kaplan, S.N. Providing programs for the gifted and talented. Reston, Va.: Council for Exceptional Children, 1977.

Kurfman, D.G. D.G. (Ed.) Developing decision-making skills. 47th NCSS Yearbook. Washington, D.C.: National Council for the Social Studies, 1977.

La Raus, R. & Remy, R.C. Citizenship decision-making skills activities and materials. Menlo Park, Cal.: Addison-Wesley, 1978.

Renzulli, J.S. The enrichment triad. Connecticut: Creative Press, 1977.

Toffler, A. (Ed.). Learning for tomorrow. New York: Vitage Books, 1974.

Torrance, E.P. Gifted children in the classroom. New York: Macmillan, 1965.

Tuttle, B.T. Gifted and talented students. Washington, D.C.: National Education Association, 1978.

Vare, J.V. Moral education for the gifted: a confluent model. The Gifted Child Quarterly, 1979, 23, 487-499.

Educating the Talented and Gifted for Citizenship

by

James L. Barth
and
S. Samuel Shermis
Purdue University

Introduction

Of all the unlovely stereotypes in our society, the most repugnant is that the gifted must be viewed with suspicion because brilliant persons are sources of destructive, hostile and anti-social behavior.

We shall argue that the stereotype of the intellectually gifted person as inherently unstable and socially incompetent is at the root of neglect of our talented minority. We shall also assert that just as schools have recently begun to concern themselves with racial minorities, women, physically handicapped and problem learners, so ought they to concern themselves with the gifted--who also require special attention.

First, consider the stereotype: The mad scientist works in his isolated laboratory, sometimes by himself in the company of a physically twisted helper.* Left to his own devices, the scientist produces something horrible. It may consist of a deadly chemical, reanimation of a corpse or some diabolical machine. A decent soul attempts to reason with the scientist but to no avail. He is going to loose his Awful Creation on the townspeople and at the terrible denoument, will himself be consumed. The Walt Disney version is milder but just as unflattering: the extremely brilliant adolescent knows everything, has a memory like a computer and great inventive powers. Unfortunately, the same adolescent is socially inadequate and requires more "normal" friends to steer him or her away from muddle and destruction.

These stereotypes--illustrated in Mary Shelley's Frankenstein and H. G. Wells' The Invisible Man, to name but two--are part of the intellectual and cultural baggage of western civilization. They reflect an ingrained and extremely negative view of intellectual giftedness and the gifted. There is some evidence that teachers--although they are not eager to admit it--have internalized the stereotype and sometimes view their intellectually gifted students with attitudes ranging from confusion to downright hostility.

For women the anti-intellectual stereotype is doubly painful. It is expanded to include two, equally unattractive views. If the girl is extremely intelligent, she must perforce by physically unattractive, tall, thin, gap-toothed and knock-kneed. If, on the other hand, she is beautiful, she must be dull and incompetent. E.G., My Friend Irma, the canonical dumb blond. The stereotype has exercised a pernicious effect in our society, the only society on earth which stresses that individuals should be educated to their maximum potential: the effect has been to persuade girls to under-utilize their intellectual endowments.

Sources

Why do the stereotypes exist? How do they function in education? What are some implications for the topic of citizenship?

First, they exist for a variety of reasons, some of which were examined at length by the late Richard Hofstadter, the American intellectual historian.[1] Hofstadter makes the point that anti-intellectualism is tied in with the spread of the frontier and particularly the frontier notion of egalitarianism. Egalitarianism has meant many things--equality under the law, equality in the eyes of God, equality of opportunity in the making of and abiding by political decision. In recent years, it has meant equality of opportunity and access to educational facilities. In Jacksonian times, it apparently connoted equality of physical and mental condition.

Since equality has meant everything, Americans tend to be somewhat ambivalent about what they can believe. We tend simultaneously to believe and disbelieve in equality, without understanding what senses of the term we are accepting at any given moment. They cynical statement "Everyone is equal, only some are a damn sight more equal than others" suggests such cultural ambivalence. For our purposes, the supreme paradox is a belief that while it is O.K. for some to be strong, fleet and quick, it is not O.K. to recognize that there are also great differences in intelligence.

In classrooms the anti-intellectual stereotypes have functioned to discourage and to repress. Bright children sometimes go to extraordinary lengths to conceal their brightness, and this is especially true of girls.[2] Gifted boys and girls are sometimes called "pencilhead" or equally uncomplimentary names. In denying that some in fact learn faster than others, some teachers insist that every child must master the same material and must demonstrate such mastery in a uniform manner. Nothing can be skipped and all must be tested on the same day with the same multiple choice exam. Bright children who raise disturbing questions may be punished, sometimes overtly, sometimes covertly. All of these phenomena have been noted in the literature since Terman and Hollingsworth did their early research on gifted children in the 1920's and 1930's. But until a very few years ago, little had been done to ease the plight of the gifted. While there has been evidence of humane concern to develop strategies for teaching the mentally and physically handicapped, the culturally different or the emotionally disturbed, it has been assumed that the gifted do not have needs which make them as "special" as those who are thought to need "special education."

Who and What Are the Gifted?

The Indiana Department of Public Instruction, taking its cue from the U.S.O.E., suggests that there are definitions of different kinds of giftedness and that these definitions communicate something tangible.[3] Following is the definition used in one State document:

> Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities, are capable of high performance. These are children who require services beyond those normally provided by regular school programs in order to realize their contribution to self and society.

There are three dimensions of giftedness with which social studies teachers ought particularly to be concerned. First, there are academically gifted children who "display a generalized intellectual ability and frequently demonstrate specific academic aptitudes, i.e., they do very well in science, mathematics, literature, etc." The creatively gifted are"... capable of behavior and products which are creative or original. Much of the time their products are divergent, that is, depart from the usual, routine or customary." Psycho-socially gifted students"...demonstrate clear evidence of leadership and qualitatively advanced ethical and moral development." The term "gifted," with its connotations of a "gift", perhaps from a higher power, lacks precision. However, as the term is used, we seem generally to be talking about"...someone who can perform some important task extremely well, as well as can be done."

We should also like to make a distinction between the two terms, "intelligence" and "intellectual." Altnough both have long and interesting histories,[4] our preference is to distinguish them in this way: intelligence refers to the capacity to learn, with "high intelligence" meaning one who is capable of learning a good deal quite rapidly. Intellectual refers to an interest in ideas--usually ideas systematically arranged at high levels of abstraction. The interest is mysterious to many, for it is directed to the ideas for their own sake and not for their instrumental value. Thus, intellectually gifted children are likely to read biographies of Mozart, consume novels and Greek plays, collect insects, play at being astronomers or chemists, and withal, talk about their enthusiasums ad infinitum.

What are the behavioral signposts of intellectual giftedness? In general, there is a kind of generalized intellectual ability. This is usually seen as aptitude and skill in problem-solving. Gifted children tend to like solving puzzles, riddles and mysteries. Gifted children also enjoy dealing with problems at different levels of abstraction--that is, they are concerned not only with specific facts but broader philosophical questions. They are therefore concerned not only with the diet of dragonflies or the characteristics of baroque music but with such questions as, Where did the universe come from? How long has God been around? Why is there so much injustice in the world?

Sometimes the intellectual gifts of a child are not as broad and inclusive as we have described above. Sometimes they are limited to particular fields or subjects. Thus, a child may be average in almost everything but perform spectacularly well in one area--music, mathematics, technology, literature or the like. The authors recall one student who was functionally illiterate but was nevertheless able to diagnose a transmission problem, take it apart and put it back correctly; another child with a measured I.Q. of 70 was able to reproduce music on the piano after one hearing. We also know of children who make monotonous C's in every subject but who--often unbeknownst to their teachers--acquire one language after another on their own.

Creatively gifted children have been studied only recently--since Professor J. P. Guilford reminded psychologists in 1950 that there were literally tons of research on intelligence but next to nothing on creativity. What exemplifies creative behavior is the production of a truly, novel, different,

unique and unexpected work. Obviously it is not clear how "novel" and "difficult" a work must be before we talk about creativity and it is also the case that many geniuses are not recognized until they are safely underground. However, the literature in the field is replete with descriptions of children who spin a fully developed story out of their imaginations, complete with exotic characters. We are also aware of the teenaged child who developed both the theory and the machinery upon which the kidney dialysis machine is based. One author knows a young professor, now in his mid 20's, who submitted a completely novel mathematical proof while still in high school. These examples are, of course, unusual, indeed almost unique. But the generalization still holds: Far from being the neurotic loner celebrated in novels and movies for many decades, there has been abundant evidence that gifted children are more and not less likely to be popular, more likely to be identified as leaders. Indeed, the combination of superior physical endowment, imagination and persuasiveness somehow leads many able youngsters to become school officers, club president or the like. Such activities provide an opportunity for talented youngsters to accomplish, to learn leadership skills and to discover what it means to organize, persuade, plan, effect compromises, inspire others and allocate resources--all of which are components of leadership.

Implications for Teaching

First, just as differences in musical ability or athletic prowess are acceptable to society, it should also be recognized that there are differences in the ability to handle philosophy, art, literature, science, mathematics. Second, it becomes increasingly important for teachers to learn to identify the marks of high intelligence and demonstrate intellectual giftedness. At present, there is no evidence that we fear or despise high intelligence--as long as the intelligence translates into competent engineers and agricultural scientists. But as a society we are distinctly queasy about philosophers and social critics and those who engage in intellectual activity--that is, as we have defined it, concern for abstractions, systematically arranged, for their own sake.

Third,--if the first two are granted--we should recognize that if it is acceptable to have a "pull-out" program[5] for budding scientists and mathematicians, it is equally defensible to have such programs for those talented in the social studies and the humanities. Fourth, it is critically important that teachers learn to function at the higher Bloom Taxonomic levels of analysis, synthesis and evaluation. These are the levels which appeal most to gifted children, and, of course, they are intrinsically difficult to plan and evaluate. But operating at these levels is indispensable, for it makes no sense to burden very gifted children with long, memorized lists, i.e., state capitals, how a bill becomes a law, all of the Constitutional amendments. Memorization is accomplished rather easily by the gifted: it is abstract and philosophical questions pertaining to government, political power, social problems, international relations and disputed public policy that interests the gifted.

A most important implication is that teachers need to be aware of and cope with the threat that is often created by gifted children. Although we have yet to meet a teacher who admitted to being threatened by any gifted child,

it is abundantly clear that the 5th grade teacher who points to a picture of a dinosaur and identifies it as a pterodactyl is likely to be unsettled when a child tells her that it really is a pterandon. By the same token, it is not particularly easy for a teacher to grant that the child who has just finished all three of Bruce Catton's works on the Civil War may know more about Civil War strategy than she. But such is quite likely to be the case. Very bright children who usually started reading early and continue to read voraciously are therefore blessed with a large--sometimes a dazzling--stock of assorted information. The best way to handle the threat of a precocious, fluent and well-informed child is to admit that such a threat is possible. To recognize the threat is to then ask about a variety of strategies by which one can cope with threat.

In order to suggest ways of implementing these suggestions, we should like to present some different activities that lend themselves to the gifted child in a social studies class.

Activities Appropriate for All

Before the reader continues, we need to make two points explicit. One of the most oft-repeated objections to gifted education in social studies classes is that such must certainly go over the heads of slower or "normal" children. It is also held that social studies activities for gifted children must of necessity be qualitively different than those for average learners. The activities we have included, we believe, are suitable for most children in a regular classroom but are especially appropriate for the gifted. Why? First, they allow teachers to deal with dimensions of a topic or problem that are abstract--and thereby are more appealing for able students. Second, each activity involves elements of innovation and invention--which, according to most experts, are important in gifted education. Third, each activity requires students to evaluate and to provide some basis for their evaluation--and again we point out that rationale-building is a particularly needed activity for gifted youngsters. Hence, our conclusion: while these activities will "work" for all, they are especially congruent with what we know about the affective and cognitive abilities of gifted.

Activities

Identification of the gifted, while necessary, is not sufficient. It is also important for teachers to offer activities which are appropriate both for the entire class as well as the gifted. We suggest that such activities may be derived from the four objectives identified in the 1979 Revisions of the NCSS Social Studies Curriculum Guidelines.[6] These guidelines specifically recommend that social studies activities should help students gain knowledge, process information, examine values and beliefs and actively participate. Though the goal of social studies is the integration of the social sciences and humanities for the purpose of citizenship education, the four objectives clarify how the goal of citizenship is to be achieved. The teaching of social studies in kindergarten or the twelfth grade should emphasize during each year of instruction all four of the objectives.

The following activities illustrate these guidelines. They demonstrate how these four objectives may be applied to the teaching of the Civil War, a topic not notable for its capacity to stimulate interest in slow learners, normal children or the gifted.

Gaining Knowledge

Specific objective: Identifying people and events surrounding the Civil War

What's In A Name?

When: one or two periods

What: list of titles that have been used in the past to describe the Civil War

War Between the States	The War for States' Rights
The Great Rebellion	The Yankee Invasion
Mr. Lincoln's War	The Lost Cause
The Brother's War	American Civil War
The War for Southern Independence	The Second American Revolution

How: give the list to students to examine. Then ask students to write several reasons why each of these titles was applied to the Civil War. Follow this with a class discussion on possible reasons why each title was considered, at one time or another, appropriate. for students who have an unusual ability to manipulate concepts and a fondness for language, it is possible to go beyond this by asking them to identify or even create other names or titles which suggest a particular point of view on the Civil War. They might also deal with some or all of these questions:

How might one from another society have labeled the war?
How might the English have labeled the War?
How could the war have been labeled by a citizen of Mexico?

Processing Information

Specific objective: Identifying how bias can distort information

Media Bias

When: two periods

What: editorial comment below

How: (1) Have students read the editorial comment below. Have them substitute a positive descriptive word for each negative one. How does this change the character of the editorial? The words to be substituted are underlined.

Editorial Comments

President Lincoln held another rather useless, mostly ineffective news conference this week. As usual the President started the conference with an oft-repeated and dull lecture on the slow progress of the Union forces. He said that the uninspiring leadership of Union officers has led to poorly planned battles, great loss of life, and low moral among the troops.

(2) Have each student write his/her own two news reports on some person or event concerned with the Civil War. Use positive descriptive words in one report and negative descriptive ones in the other. What conclusion can be drawn from the difference between the two different reports?

Examining Values and Beliefs

Specific objective: Identifying the source of national values and beliefs

Examining National Values

When: two periods

What: copy of the Lincoln's Gettysburg Address

How: (1) Our country's values are found in the so-called "ritualistic documents" such as Lincoln's Gettysburg Address. In this document such a statement as the following is found:

"Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal....that these dead shall not have died in vain; that this nation, under God, shall have a new birth of freedom; and that government of the people, by the people, for the people, shall not perish from the earth."

(2) Examine the values in the Address with the class, asking the following questions:

Did these values exist before the Civil War?
Were these values also set forth in other documents, e.g., the Bill of Rights?
Dill everyone in our society hold these values during the Civil War?
Is there any evidence that these same values still exist?

Participation

Specific objective: Conceptualizing, planning and pursuing a course of action which requires decisions and also that these decisions be carried through in deed.

I Urge You to Act

When: two or three weeks

What: interview cards and Western Union Telegram forms

How: (1) Students will play the part of a reporter during the Civil War, interviewing such well known persons as President Lincoln, Robert E. Lee, Jefferson Davis, and Ulyssess S. Grant.

(2) Discuss and decide possible and appropriate interview questions.

INTERVIEW CARD

1. Name of person being interviewed_____
2. Position, role in Civil War_____

_____

3. Why person was important_____

_____

4. _____
5. _____

(3) Students could research feelings of troops, citizens, etc., concerning leaders.

(4) Students should compose a telegram uring the person interviewed to take action to end the Civil War.

WESTERN UNION

Date_____ I urge you (name) to take the following action to end the Civil War:

_____

_____

_____

Signed_____

How Do These Activities Promote Citizenship for the Gifted?

All four of these activities are designed to realize different objectives concerned with gaining knowledge, processing information, examining values or enhancing social participation. It is to be recognized, of course, that these four objectives are divided only conceptually. All ought to be involved in all social studies activities. Let ud examine them briefly:

What's In A Name? asks students to bring to bear a good deal of information on a particular set of biases. For instance, to decide why "Mr. Lincoln's War" is a polar opposite of "The Second American Revolution," one must identify concepts and values from many sources. Similarly, Media Bias helps students distinguish connotations and denotations: "uninspiring leadership" and "inspring leadership" may well be a function of whether one believes that the Civil Union generals were simply incompetent or were fighting insurmountable odds. Examining National Values continues the same approach for it demands that students make inferences about national values from highly abstract verbalizations. Finally, I Urge You to Act asks students to relate cause, that is, the reason why I urge you to act, and effect, that is, the actual decision to be made, the action to be taken. Gifted students, in particular, can perhaps see that any given important decision carries with it a train of consequences and that these consequences must be appraised in light of one's values and assumptions.

Conclusion

A moment's recall will remind one that the vast majority of culprits caught up in the Watergate net were not only highly educated attorneys but were probably also quite intelligent. Another moment's recollection will remind one that their willing participation in illegal, immoral and unethical--even savage--acts was essentially a failure to ask questions that we believe are inherent in citizenship. In short, these clever men used their technical brilliance to commit essentially undemocratic citizenship. We do not know

precisely why, despite the literally tons of articles, biographies, books, etc., on the subject but we can come to one conclusion: citizenship education must have failed these very bright men.

It seems at least arguable that their failure was also the failure of an educational system that permitted schools to provide them with a vast amount of cognitive resources while forgetting that citizenship also requires the humane use of knowledge for ends that are ethically defensible. We do not know, because we cannot change history, whether the outcome could have been changed 25 and 50 years ago when they received their elementary and high school education.

But it is at least worthwhile thinking that gifted children who are deprived of citizenship training may use their gifts in particularly anti-social ways. It is long past time that social studies educators turn their attention to what is not happening to gifted youngsters.

NOTES

1. See Richard Hofstadter, Anti-intellectualism in American Life. New York: Knopf, 1963. On the subject of the frontier contribution, see Oscar Handlin, "Shaped in the Wilderness," Atlantic Monthly, 311 (June, 1963) 94-106. On the anti-theoretical bias of American society, see Shermis in "Why Study Educational Philosophy?", the section of Theory, in Philosophic Foundations of Education. New York: American Book Company, 1967.

2. In recent years many have commented on this. See, for instance, Patricia Cayo Sexton, Women in Education. Bloomington: Phi Delta Kappa, 1976, from which the following is taken:

> Girls may be advised by a counselor to enter a commercial rather than a college curriculum in the high school. Boys may be advised to pursue science, math, or technical courses for professional occupations. Girls may be excluded (as they have been in New York City and elsewhere) from the most elite schools of science, trade-technology, or academic studies. (See Chapter Seven, "Socialization, Sex Roles, and Discrimination," especially p. 63).

3. The following definition and subsequent discussion of types of giftedness are taken from Barth and Shermis, Teaching Social Studies to Gifted Children. Indianapolis: Indiana Department of Public Instruction, 198-.

4. Both terms occupy many pages in the Oxford English Dictionary, Oxford: The Clarendon Press, 1961, Volume VI.

5. A recently coined term meaning courses designed especially for the gifted, in which they are taken out of their regular classes and grouped with one another for purposes of gifted instruction.

6. See Robert Osborn, Chairperson, Ad Hoc Committee on Social Studies Curriculum Guidelines, Washington, D.C.: National Council for the Social Studies, 1979.

7. The following were taken from James L. Barth, Elementary and Middle School Social Studies Curriculum Program, Activities, and Materials. Washington, D.C.: University Press of America, 1979. They have been modified somewhat for our purposes here.

*Satirized brilliantly by Mel Brooks and Marty Feldman in the comedy movie Young Frankenstein.

Social Studies Opens Doors For Gifted Children

by

Maxine Dunfee
Indiana University

"Gifted pupils? Yes, I have them, but really I can't get too sidetracked on helping them develop. I must spend most of the time drilling on the basics to be sure they all pass. Even the bright ones have to be coaxed and cajoled to finish their workbooks. Social studies? There's really very little opportunity, because of our emphasis on reading and mathematics. Oh, of course, we take time out for current events--we use a school newspaper, you know--but I can't say that the children are particularly interested. Yes, we do have a social studies text to cover. Later on, we'll use it as reading practice and get most of it done. The bright ones will go through it pretty fast; in fact, I'll have a hard time keeping them reading ahead of the rest. How do I know they are bright? Well, it's easy. You should hear them talk--they pick up all the big words from television--their vocabulary is tremendous, although they often misspell the simplest words--just carelessness, I think--sometimes they don't care. Their minds are a long way off. Of course, there are other signs of being smart--they are often the first ones done with a task if it interests them at all, and then there's usually trouble because they can't find anything to do until the others finish. They are good at figuring things out--they can think of new ways to do things, and sometimes they even tell me how something could be done in a better way. Does that bother me? Well, I suppose it shouldn't, but it does seem to me that they don't need to show off that way quite so much. I wouldn't mind if I had a whole class of the bright ones--they could hold each other in check a bit and maybe all that initiative and creativity wouldn't get so out of hand. Sometimes I try to control the situation by having the fast workers help the others with their reading and math. They like to do it, and they make pretty good teachers--saves me time as well. But mostly I'm happy to let them take care of themselves so that I can have more time for my slow ones. But I am getting the feeling that you don't think that some of the pupils in my room are getting a fair chance; is that it? Or perhaps you are going to tell me that there is a better way. But don't suggest social studies as the solution; we'll be lucky if we get the textbook read!" Mrs. Revere pauses to catch her breath.

Not far away in a neighboring city, a group of fourth-grade pupils are enjoying their new social studies textbook. *They are discovering that the theme of the book is what we do; their attention is on the title of the first section: Ways to be Fair. As the children turn the first few pages of the book, they come upon something that interests them almost at once.

---

*Self-Expression and Conduct: The Humanities (Orange). New York: Harcourt Brace Jovanovich, 1976, pp. 10-11.

LARRY: Look, Mrs. Bronsky, the picture on page 11 is just like what is happening out where our College Mall shopping center is being made bigger. Houses being torn down, you know, and then they're headed right for Latimer Woods. The woods are already closed to everybody.

RITA: And look on the page just before that one--something about people who wanted a 'houseless' hill. It's from a newspaper--The San Francisco Chronicle.

JOSE: Yeah, just read it. A bunch of people out there in California didn't want to have buildings put on a beautiful hill they had always used for a lookout and for flying kites.

MRS. BRONSKY: Do you think problems like that are easy to solve? Do people always agree about how the environment should be used?

JASON: I've got an idea. Let's find out what the people did to save their hill and then see if their ideas could be used right here in our city. I sure would like to keep Latimer Woods for picnics and bike paths, and I think a lot of other folks would, too. What do you think, Mrs. Bronsky?

MRS. BRONSKY: Well, Latimer Woods would certainly be worth saving. How will you begin? Can you locate the newspaper articles that have been written about the problems? Do your parents know any members of the plan commission?

LISA: Sure, and one of my friends lives out hear there, and she told me that the residents of that area were protesting. Could we find out what they plan to do?

MRS. BRONSKY: Of course, but is there only one side to the story? How about the shopping center developers? Do they have a point of view? How will you get that data? I'm sure they will have good arguments.

JASON: Well, let's use our textbook to find out how questions like that are settled fairly and see if there are any ideas we can use. Then we need to plan--one, two, three--what we need, how to get it, and how to organize it. Then we can figure out some special plans for the woods. We'll need lots of things--newspapers, maps, reports, facts and figures; that's what we need.

Our bright and gifted children are a precious commodity, as are all our children. But upon these talented ones will one day rest the special responsibility of leadership that requires insight, decision-making skills, initiative, creativity, and concern. We have two choices--either to place them in a holding pattern where they do what all other pupils do, or engage them in real-life situations that challenge them to put their learning to work.

Bright and gifted children have always been present in our classrooms, of course. Even when we had few sophisticated means of determining intellectual ability, they were recognized by their precociousness. Like Mrs. Revere, whose comments opened this discussion, teachers praised these children when they conformed successfully and performed in a quality way to academic demands. Their ability to work independently was gratefully noted by teachers, who then had more time to spend with their slow learners. When these talented children failed to conform,

were bored with the routines of learning, and used their free time in undesirable ways, teachers often despaired. In any case, the classroom program was designed without reference to individual differences. The bright ones survived as best they could.

When we finally recognized that we must take a more active responsibility for the education of gifted children, we began by seeking ways to individualize classroom activities and expectations. The brightest were expected to do more work, in quantity, and to perform at a higher level than their classmates. "Enrichment" projects, "contracting," special assignments, and in some schools "skipping a grade" were among the efforts to encourage these children to work up to their potential.

If the number of gifted pupils in a school was large enough to justify a special teacher and special facilities, the gifted were separated from the classroom of more average children and assigned to "opportunity" rooms and special programs. Here, under the guidance of a teacher interested in their welfare and challenged by their superior ability, the pupils were involved in a variety of learning experiences designed to encourage them to develop their intellectual prowess to the fullest extent.

While the talented children were no doubt profitting to a degree from more stimulating learning experiences, their separation resulted in several unfortunate circumstances. Labeling them fostered disdain and conceit on their part and dislike and frustration in other pupils. It encouraged unhappy comparisons by both children and parents. Word got around--who were the bright and not so bright.

Furthermore, separation of these pupils remove them from day-to-day contact with the normal hetereogeneous class group, forcing them into an "elite" school society. They had no opportunity to share experiences and exchange ideas with classmates and friends from whom they were more or less isolated. In turn, other children were disadvantaged because they were denied interaction with varying levels of maturity and achievement. Interpersonal relationships were likely to be damaged all around. As Mrs. Revere in the opening momologue seemed to sense, there may be a better way. Perhaps Mrs. Bronsky and her Latimer Woods enthusiasts had discovered it.

Social studies can be that "better way." A lively, flexible social studies curriculum can involve gifted pupils in challenging learning experiences which do not isolate them from their classmates and friends, do not create resentment and frustration or a snobbish elite. Instead, children of varying intellectual capacities "team" together, cooperating, helping each other, taking pride in their accomplishments. The contributions of group members may differ in level of maturity or in depth and thoroughness, but the outcome is a joint undertaking. In short, they work together, without labels of brightness or not-so bright, much as they will as they grow into adulthood on the life outside the school.

When gifted pupils are part of a purposeful investigation in social studies, such as that suggested in the episode in Mrs. Bronsky's class, they identify problems significant to the class group, set up hypotheses about possible solutions, gather data in order to test these hypotheses, test their solution against collected data, come to feasible solutions, and plan ways to test these conclusions. These are

exactly the skills needed in coming to grips with the many personal, community, and larger world problems which face citizens of today. Children are developing concern about living in democratic ways, protecting the environment, eliminating prejudice, encouraging friendships at home and abroad, and building self-worth in troubled times. Social studies encourages all children, as well as the gifted, to try out ideas, to share a wonderful time in a caring group of pupils, who may differ in abilities but are alike in being children and in their concern for the problem they are studying.

Within these enterprises, capable children move with ease into the more difficult phases of investigation and pursue them to whatever lengths their interest and skills make possible. They are involved in active learning, stimulated to want to know, self-motivated to dig in and persist.

If we hope, and indeed anticipate, that the most mature and intelligent pupils are likely to be leaders, we have a special obligation to help them acquire skills in valuing and decision-making. Very likely their adult choices will be made on the basis of the value systems they have developed as children and youth. Social studies has a unique opportunity to teach our future "doers and movers" to analyze value conflicts, to explore alternatives, to identify consequences, and to make decisions that correspond to acceptable, and even desirable, personal and social action. Such a responsibility mandates that our youngsters gain skill in decision-making. Social studies provides an appropriate setting for all children to grow toward effective citizenship, each capitalizing upon personal abilities and talents.

How are Mrs. Bronsky's pupils doing by this time? Let's look in upon them. It is now some days since we listened in on their experience and concern about the shopping center expansion in their town.

MRS. BRONSKY: Do you think we need a little time to see where we are and what all of you have been doing?

JASON: Yeah, we've a lot of data collected, but it won't make any sense until we try to put the pieces together. For example, I've been reading the contour maps of the area that includes Latimer Woods, but I need to compare them with what Tammy and Sara found out when they took their walk around the woods.

TAMMY: That's true, we made our own sketches, but Jason can help us read his maps and match them up to the ones we've made.

SUSAN: Where do you think we should start, Mrs. Bronsky?

MRS. BRONSKY: Well, I think Jason has started us off in a useful direction. Why don't we put together all the information we have that is related to Latimer Woods itself. Then we can decide what to look at next. All right with all of you?

CRAIG: Mark and I went along with Tammy and Sara. They did the sketch map but we did the measuring. You all know that the woods isn't very big. You can see all of it as you walk toward it across the fields where the bull-dozers are working. You'll find the measurements here on the girls' map.

JASON: Here, I've marked on this official contour map just where the woods boundaries are. The good things about this map is that it shows the elevation of different parts of the woods.

HENRY: You know we wanted to find out what it would cost to put in a bike path through and around the woods. It was important to know the rise and fall of the ground. Jason's map shows where we could put the bike paths for the most level ride.

MIGUEL: I haven't done it yet, but whenever Jason and Henry can show me the way, I'm ready to ride my bike over the route to try it out, even if it will be a little rough.

BETSY: I'd like to ask Henry if he knows how much a bike path will cost. My Dad reminded us to be sure to check different kinds of surfaces. There's a lot of difference in surface and durability. And in cost, too.

HENRY: We've started on that. Dick's father works for a construction company. Dick's going to get the cost from him. Be sure to get the square-foot cost. Then we'll figure it out when we know the length and width of the bike path.

MRS. BRONSKY: That will require some math knowledge, some of us don't have yet. Who'll take time to figure out how we get a measurement on area? All right, Peter, that's for our math shark. What next?

JEANNE: Three of us were especially interested in picnic equipment. There are some good tables in South Ridge Park. We went over to see them. They're a nice size and comfortable. They've been there for three years and still look good. We plan to ask the Park Commission about them--you know, costs and material.

MRS. BRONSKY: We are making progress on what we'd like for the woods. Now where are we on our plans to find out how the woods can be saved from the bull-dozers? We know the trees are safe for the time-being, but we can't put off too long finding out about the future.

ISAAC: We haven't done much yet, but we have plans. Six of us have been working on it. Lisa with her Dad's help will get the minutes of the last meeting of the neighborhood group that lives next to the woods. She knows that it was talked about at the meeting. Where Bob lived last year, there was the same kind of problem over a place to build a swimming pool; he will write some friends there to find out what they did to get their pool. Andy and I are going to interview the construction foreman for the shopping center to see what they know about plans for the woods. The manager of College Mall doesn't live here, so we haven't figured out yet how to get to that person; but we're working on it. What do you think, Mrs. Bronsky?

And so Mrs. Bronsky's fourth grade group continue to pursue their objectives. Will they save their woods? Sad to say, they may not, and they know that the plans of children may be no match for adult intentions. But here they are, the bright and the gifted in the midst of their classmates, planning and executing, exploring alternatives and making decisions. Social studies has opened the door to real-life adventure.

Establishing Social Studies Programs for the Gifted

by

Thomas C. Seifert
Indiana State University

Before a school can establish a special social studies curriculum for the gifted there are four specific issues that must be resolved. The first issue is philosophical. Is it democratic to have a special social studies program for the gifted? Only after this philosophical question has been resolved can the school turn its attention to more practical issues. How do we define "gifted"? How can we identify gifted students? Finally, how can we reorganize the social studies curriculum so as to provide for the needs of the gifted?

Can public schools provide special programs for the gifted and talented in a democratic society? This debate has raged since the beginning of the nation. Thomas Jefferson argued that every citizen should have an equal opportunity to achieve at the level of his ability. He supported scholarships for the poor but able so that social or economic status would not deprive students of educational opportunities. Jefferson believed that both the republic and the individual would be best served by providing for the education of the gifted. Jacksonian democrats were opposed to special treatment for the gifted. Their egalitarian principles supported the offering of the same educational program to every child. Special programs would be discriminatory and undemocratic.[1] This debate was continued by Booker T. Washington and W. E. B. DuBois. Washington stressed vocational education for the masses and DuBois stressed a curriculum of higher education for "The Talented Tenth".[2]

If politicians and civil rights leaders cannot agree about the need for special programs for the gifted, it should not be surprising that schools have been unable to resolve this issue. Some schools have adopted the Jeffersonian position and established special programs for the gifted. Other schools practice the egalitarian principle that all children should receive the same educational program. Still other schools compromise. They offer special programs for the gifted in certain areas, such as mathematics, science, or the arts, but keep social studies egalitarian. The rationale for this compromise is based on the theory that only an egalitarian social studies program can provide the citizenship education component of social studies instruction.

Personally the author believes that the nation can no longer afford egalitarianism. The problems facing the nation and the world are too large and complex for simplistic solutions. We must not waste talent. We must educate each and every citizen to the best of his or her abilities. We must strive for excellence, not settle for mediocrity.

Responsible citizenship education programs must provide citizens with the skills necessary for solving the issues of the 1980's. If we continue to offer challenging educational programs in science and mathematics without offering similar programs in social studies, we will encourage our best students to ignore the study of society. We need more talented and creative individuals in the public arena, not less. Special social studies programs for the gifted which require serious consideration of the complex problems of modern society are necessary if democracy is to thrive.

How do we define "gifted"? Some definitions equated gifted with academically talented and stressed a few characteristics such as reading ability and I.Q. scores.[3] The United States Office of Education provides this official definition:

> Gifted and talented children are those, identified by professionally qualified persons, who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs in order to realize their contribution to self and society. "High performance" might be manifested in any or a combination of these areas: (1) general intellectual ability; (2) specific academic aptitude; (3) creative or productive thinking; (4) leadership ability; (5) visual and performing arts; and (6) psychomotor ability.[4]

Use of this broader definition has encouraged some psychologists to develop lengthy lists of characteristics for gifted children. Mary V. Seagoe provides a list of sixteen traits including such diverse ones as keen power of observation, interest in cause-effect relations, liking for structure and order, retentiveness, verbal proficiency, questioning attitude, creativeness, power of concentration, persistent, sensitivity, independence and versatility.[5] Leonard Lucito's list of twenty characteristics for creative children suggests that the creative child views the world with extra wonder, learns considerably from fantasy, displays a positive self-image, is attracted to the unconventional, and displays humor in his/her creative products.[6]

How can we identify gifted students? The breadth of characteristics mentioned above suggests that any program of identification should use multiple criteria. When the author began teaching in 1963, the only criteria his school used for identification and classification of gifted students was a combined reading and I.Q. score. This approach is no longer acceptable. Group intelligence tests and achievement tests can provide some information but schools should also consider previous grades, and nominations by teachers or parents. These nominations are especially useful if the nominators use rating scales to indicate the particular characteristics that the individual exhibits. Two examples of these rating scales can be found in Marsha Correll, Teaching the Gifted and Talented. In all cases, schools should use extreme care to assure all female and ethnic minority students who are gifted and talented are identified.[7]

How can we reorganize the social studies curriculum so as to provide for the needs of the gifted? There are three basic approaches for reorganizing the

curriculum: acceleration, grouping, and enrichment in heterogeneous classes. Acceleration is a process whereby gifted students receive the same material as other students but are allowed to progress at their own speed. Acceleration is particularly useful in a non-graded elementary school or in disciplines like mathematics and science which are highly structured and sequential. Secondary social studies programs do not meet these criteria and consequently acceleration is not particularly useful for meeting the needs of gifted students interested in social studies.

Grouping assumes that gifted students will perform best in separate classes. Consequently, once gifted students have been identified they are placed in homogeneous classes. Since there is an extremely wide range of abilities and talents within the gifted and creative groups, the term homogeneous is relative and teachers of the gifted and talented still must individualize instruction. With grouped classes care must be taken to assure enough flexibility so that students can be moved in and out of the gifted and talented sections when it becomes obvious that errors have been made. In any case, the most important consideration is not the question of grouping, but what happens to the students after they are grouped. Unless grouping allows for different experiences, there is little reason for it.

Enrichment in the heterogeneous classroom also provides the gifted with different experiences. One difficulty with enrichment in the hetrogeneous classroom is that different sometimes is merely more of the same. When this happens the gifted are not challenged.

If the social studies curriculum is to really challenge the gifted and talented, it must offer educational opportunities which are related to the special characteristics of the gifted. Courses should be organized around a few key concepts or generalizations which can be tested. This selectivity of topics will allow in-depth study, the use of a variety of sources with contrasting viewpoints, and the development of research skills. At least a few of the topics studied should be currently controversial. Study of these issues will allow students to learn how to evaluate propaganda, how to use newspapers and magazines, and the necessity of using facts and concepts from a number of different disciplines to resolve problems. The study of the current energy crisis, for example, would allow students to relate scientific facts and concepts to political solutions and to see how economic principles limit choices.[8]

Evaluation should be based primarily upon student projects. These projects can be both written and oral, short or lengthy, and might include panel discussions, term papers, book reports, student edited newapapers, plays, cartoons, maps, debates, and bulletin board displays. In-class tests should stress intellectual skills such as summarizing, analyzing, and interpreting.[9]

In summary, schools should offer special social studies programs for the gifted and talented. They should use a definition of gifted which stresses high performance in a number of areas. They should identify students as gifted by using multiple criteria. Finally, they should organize the social studies curriculum so as to challenge gifted students to use and develop their special talents. Schools that establish social studies programs that meet these requirements will help America respond to the problems of the future.

NOTES

[1]Margaret Gray, "Educating the Gifted: Prospects and Promises," Contemporary Education, 51, No. 1 (Fall, 1979), p.47.

[2]John Hope Franklin, From Slavery to Freedom (3d. ed.: New York: Knopp, 1967) pp. 390-397.

[3]Dorothy McClure Fraser and Edith West, Social Studies in Secondary Schools (New York: Roland Press, 1961), p. 258.

[4]Sidney P. Marland, Jr., Education of the Gifted and Talented, Report to the Subcommittee on Education, Committee on Labor and Public Welfare, U. S. Senate. (Washington, 1952), p. 10.

[5]Cited in Marsha M. Correll, Teaching The Gifted and Talented (Bloomington, Indiana: Phi Delta Kappa Educational Foundation, 1978), pp. 13-15.

[6]Cited in Correll, pp. 15-61.

[7]Correll, pp. 17-22.

[8]More examples of specific techniques for teaching the gifted can be found in Association of Teachers of Social Studies, of the city of New Handbook for Social Studies Teaching (3rd Ed.; New York: Holt, Rinehart an Winston, 1967), pp. 131-155, and Gerald Leinwand and Daniel M. Feins, Teaching History and the Social Studies in Secondary Schools (New York, Pitman, 1968), pp. 254-259.

[9]For examples see Horace T. Morse and others, Selected Items for the Testing of Study Skills and Critical Thinking. (5th. Ed., Washington, D. C. National Council for the Social Studies, 1971).

Beyond Lists and Writing Definitions--Deeper Dimensions of Vocabulary Study for the Gifted Student in the Classroom

by

Rexel E. Brown
University of Evansville

Gifted children are the most likely students to profit from direct instruction in vocabulary development. (Severson, 1963; Vanderline, 1964) This may be due to their innate curiosity about symbols of any type, to their ability to work with abstract ideas, or to their rapid perception of the relationships between verbal symbols. Whatever the cause, most verbally gifted children find the study of vocabulary interesting and rewarding, particularly if the teacher is deeply involved in the study of language.

Unfortunately, the study of vocabulary in the basal reading program and in most commercial materials is a unidirectional attack, asking students to match definitions, synonyms, antonyms, etc., thus requiring only single meanings. In the vocabulary step of the basal lesson the student is taught only the meaning of the new words in the context of the particular story they are reading, and unless the teacher introduces the word in more depth in the skills or enrichment section of the lesson, the student is limited to only one level of understanding. Commercial materials usually ask the student to match a key word with either a definition, a synonym, or an antonym. This is testing, not teaching, and once more limits the student's understanding. The old practice of having students write definitions is the anathema of sound educational practices. Present day practices, in general, ignore the more interesting and important deeper meanings of words--the psycholinguistic nature of words, if you prefer.

It is the purpose of this paper to give the classroom teacher some specific activities designed for the bright and gifted student in small group or through individualized instruction in the regular classroom. It is there that we will find most such students despite the current movement for special classrooms for the gifted. These activities are also suitable for the average student if explained thoroughly and simplified.

Selection of Words

The selection of the words to be taught in depth is one of the most critical aspects of direct vocabulary instruction. Aided by the media no doubt, teachers often fall into the mistake of thinking that intelligent children need to study multisyllabic, intricate, and rarely used words. To the contrary, such children need to be shown how to use the more common

words of our language with increasing precision. Intelligent people need to be able to select the exact and best word to express what they mean--it is this factor that is needed by the future leaders of our country. This ability is nurtured by the study of multiple meanings, connotation, shades of meaning, association, and generally what is thought of as the "depth dimension" in vocabulary instruction. Words from the content areas, and the power words that describe personalities, ideas, behaviors, etc., are the most useful words. An excellent source of such words would be The Living Word Vocabulary (Dale and O'Rourke 1979). Such words could be two or three grade levels above the grade placement of the gifted student and certainly these students should be allowed to select words from special interest areas for personal study. Teachers should, however, select a limited number of words and develop these in greater depth rather than to take hundreds of words for study. Again, it must be stated emphatically that the variable of teacher interest in words will have the greatest effect on vocabulary growth by their students. The activities given below presupposes that a teacher is very interested in reading, practical linguistics, and word-study in general.

Questioning Strategies

Just as probing questions at different levels of comprehension produce deeper understanding of what is being read, questions that focus on preciseness and multi-level understanding of a specific word to see if it is too narrow or too broad for complete understanding. Suppose a student is asked to give the meaning for the word orange (the fruit). He replies, "It's round...and you eat it." The teacher would ask, "Is there any other thing that exists in the world that would fit under this definition and still not be an orange?" The student, seeing that apples, peaches, and many other foods might fit, would expand his definition. "It's a citrus fruit, round and orange in color that is used for food," might be the next definition. In such a manner, all other things that could fit under the definition could be eliminated. A second type of question would make sure that nothing was left out that should be included. "Is there an orange that would be left out if we use your definition?" the teacher might ask. The brighter child would see that some oranges may be green or yellow and, therefore, revise his definition to include these.

Botel (1959) has a four level questioning strategy that would require understanding of the multiple meaning of words. When discussing a word such as foot the student could be asked any, or all, of these questions:

Definition Question: What does the word foot mean in this sentence?

He stood at the foot of the hill.

Synonym Question: What word could you substitute for foot in the sentence without changing the meaning of the sentence? (bottom)

Antonym Question: What word could you put in the place of foot to make the sentence mean the opposite of what it now means? (top, peak, etc.)

Semantic Question: What other meanings do you know for the word foot? (Part of body, foot the bill, measurement, etc.)

A more sophisticated technique could be developed around many of the dimensions of semantic space and/or McCullough's (1968) chart explained in the next section. More than 25 different types of questions could be generated for a single word although this might be too concentrated. A better plan would be to explore the most cogent dimensions for a particular word, eventually using all of the possibilities for these paradigms.

Children's Semantic Space, Semantic Maps, and Semantic Feature Analysis

Evanechko (1972) has developed a chart he calls "children's meaning categories" that delineates the semantic space a child may use in defining a word. Shown below are some of the easiest of the 24 categories that he lists and a specific type of activity that could be used by the teacher to develop an understanding of that dimension.

(1) Synonym--Word is defined by giving a synonym

Exercises that help the student come to understand this dimension are usually similar to those in commercial vocabulary developments. The student is given a specific word and asked to give as many synonyms as he knows that means the same or about the same. The category might best be used with (2) (similarity) since words meaning exactly the same are not as plentiful as one might think.

(2) Similarity--Word is defined by giving several similar words that vary in degree or occupy a more extreme position. A student when given the word hungry might give such words as starving, famished, ravenous, etc.

Exercises in this category should have the student show the variation in degree or intensity. A gradient, or intensity scale, might be developed. Suppose the student is given the word big and asked to list words of a similar nature. After listing huge, enormous, large, gigantic, etc., the student would be asked to put them in a scale according to degree:

big--large--huge--enormous--gigantic

The student could then be asked to expand the word to the left with words such as these:

microscopic--tiny--small (all to the left of big)

(3) Supraordinate--Word is defined by giving a class to which it belongs. A child when given the word sparrow, defines it as "a type of bird."

Exercises designed to develop a student's understanding of this dimension would encourage moving up the ladder of abstraction to a more generic definition.

Give the student the list on the left and ask him to supply the larger class to which it belongs

a. apple--fruit
b. oak----tree
c. carrot--vegetable

The student could then be asked to expand any of these by using the coordinate category below.

(4) Coordinate--in defining the word the student gives other words of the same class. Taking the word apple he might list other fruit that grow on trees such as pear, peach, orange, etc.

(5) Attribute--the student would show his conception of the word by giving words that refer to a quality or characteristic associated with that word.

Exercises designed around this category would ask the student to give words that are attributes of that word. These might be categorized as to taste, appearance, texture.

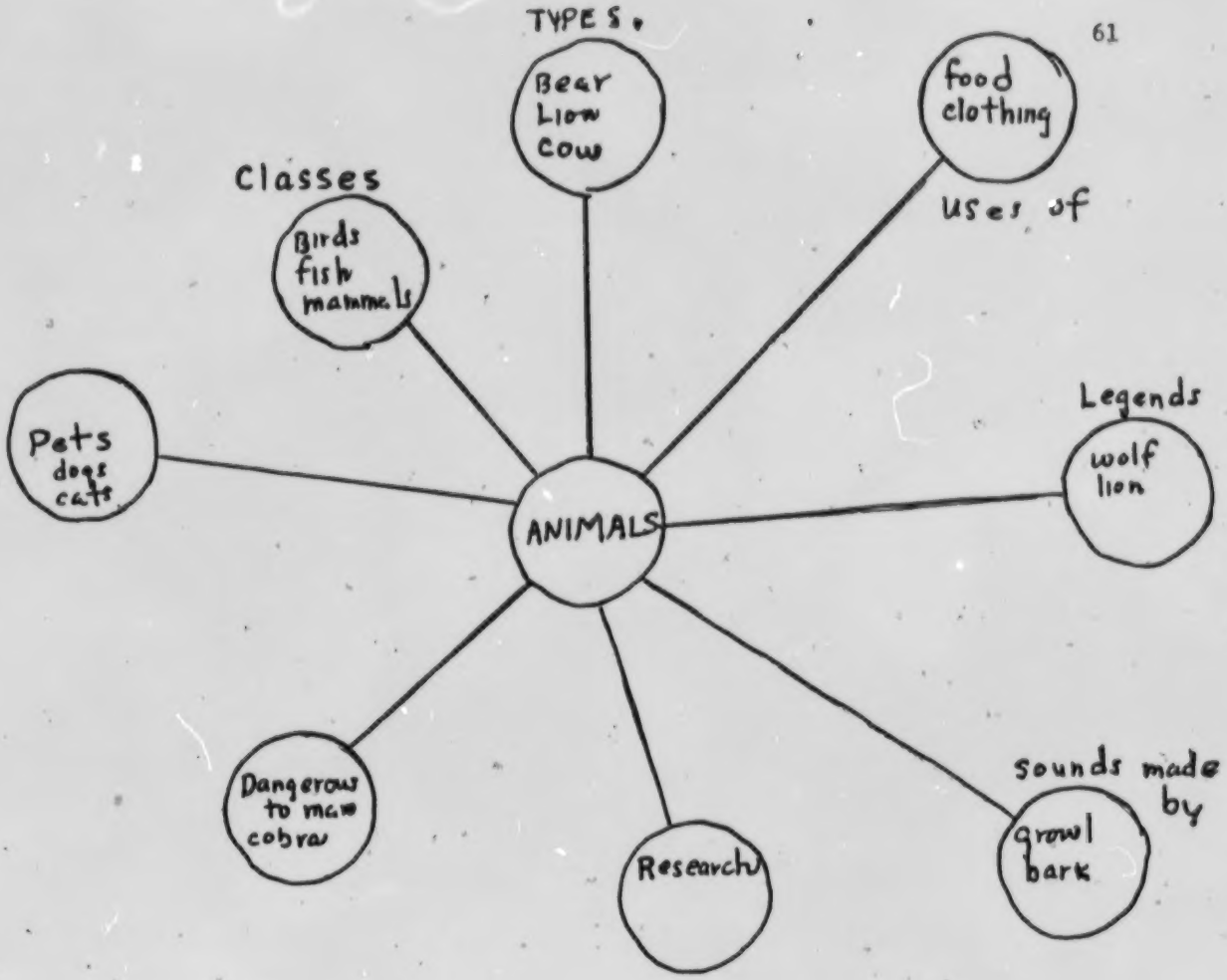
Student is given the word orange.

He gives words describing appearance--round, orange (color); taste--sweet, sour, acidic.

Among the other 19 categories given by Evanechko that a gifted teacher might use for developing exercises would be:

Contrast--the student is asked to give the word on the opposite end of a continuum, e.g., given the word rapid the child gives slow.
Action of--Student is asked what type of action do we see in a dog. It barks, scratches, eats, runs, shakes its tail, etc.

Similar to the techniques described above would be the use of semantic maps as described by Pearson and Johnson (1978). After being shown how the map works the student would be asked to fill in a map such as the one on the left in Figure 1. This graphic representation would be an extension of the type of activities mentioned above. A final activity for the extremely gifted student might be to design his own semantic map.



A word feature analysis chart has been suggested by Pearson and Johnson as an activity that would demonstrate to students that very rarely will two words have exactly the same meaning although they will share many features in common. These authors suggest the following steps in developing a word feature analysis chart:

1. Select a category.
2. List in a column some words within this category.
3. List in a row some features shared by some of these words.
4. Put pluses or minuses beside each word beneath each feature.
5. Add additional words.
6. Add additional features.
7. Complete the expanded matrix with pluses and minuses.
8. Discover and discuss the uniqueness of each word.
9. Repeat the process with another category.

They use the category of <u>conveyances</u> for the first activity. Shown below (Figure 2) is their completed chart for this category.

Conveyances

FEATURES → / WORDS ↓	2 wheel	4 wheel	motor	passengers					
bicycle	+	−	−	−					
motorcycle	+	−	+	+					
car	−	+	+	+					
skateboard	−	+	−	−					

Preceding semantic maps and semantic space by almost a decade, McCullough developed a very useful chart that, in its simplicity, offers perhaps an easier method of teaching much of the same concepts. Taking some of the categories of her chart, one can see the depth with which children could study the word orange used previously. (Only some of her categories are used here.)

1. Whole-part relationships

   The student is asked to give the part of the orange.
   (peel, seed, pulp, juice)

2. Generalization--classification

   Students might be asked to make generalizations about the growth of the orange or its nutritional value.
   (Oranges grow in warm climates.)
   (Oranges are good for the skin and gums.)

   Or classification: (Oranges are citrus fruit.)

3. Cause-effect relationships

   (Orange trees are destroyed by frost and the cost of oranges goes up.)

4. Comparison-contrast

   Students are asked to compare oranges and grapefruit.

   (Oranges are sweeter in taste, different in color, smaller, etc.)

5. Conditions

Ask students what is needed for an orange to grow.

(Soil, sunlight, warmth, minerals, etc.)

Other categories in this chart include qualities, uses, time-relationships, place-relationships, antonyms, synonyms, multiple-meanings, word derivation, definitions, word form, laws and theories, summarization, procedures and uses in literature.

Giving different children a category within their grasp would lead to an in-depth discussion of a single word. Possibly one student might want to explore a word from several different dimensions.

Word Origins--Historical and Geographical Linguistics

The study of the words of our language has in recent years evolved from an esoteric domain of the linguists to a more viable and fascinating activity for both the student and teacher. No teacher, worth her chalk, ignores the many ways in which words come into being. A word with an interesting history or usage is just as intriguing to the verbally-gifted student as it is to the most sophisticated linguist, a fact known to publishers who have begun to develop materials written for students at all levels. Many adult level books are well within the readability range of many students and offer materials ranging in difficulty from intermediate grades to post-graduate levels. The suggestions for word study that follow are for both the students and the teacher. It must be repeated that the teacher must become a "word-nut" or to coin a term "psycholexicographer" if he wishes to inspire the students in studying words at this depth. The types of word developed in these exercises are mentioned by Shipley (1977).

1. Invented words

The easiest way to develop a new word is to just make it up. In a sequence of activities the teacher should first have students search the references for such words that have been added to our language, either individually or as a group. Such words as blimp, kodak, hamburger, pyrex were coined to fit a specific need and are found in every area of study. After students have researched the origin of such words, students should be asked to coin words that would be useful in today's world.

2. Use of proper names for concepts

The teacher might begin by having students research their own name to see the reverse of this idea. This procedure is highly motivational and will show students that words like cooper, smith, baker can become surnames and words like sandwich, boycott, and sandwich can be made from surnames.

3. Borrowed words

Many of our words are taken directly into our language from other languages. After a general search for such words to get students to see the number of different countries "loaning" words to us, students should be asked to concentrate on specific countries either individually or in groups. Classroom source-books could be developed, bulletin boards or charts could be shown as a group project. Such activities would have the added value of showing the wide diversity of people making up our country.

4. Meaning shifts

Students in these activities are involved in learning the structure of historical and geographical linguistics. Projects where the students research cases of pejoration (hussy has been lowered in status), amelioation (minister has been raised in status), generalization (ship at one time meant to send by ship only but now includes sending by any conveyance), or specialization (lad at one time meant boy or girl but now means boy. Geographical linguistic study would have students taking a common word like soda and see how other words are used in other parts of the country for the same idea, i.e., coke, pop, soft drink. Also in this category would be the comparison of two English speaking countries terms for the same idea: lift for elevator, chemist for druggist, etc.

Other areas for research and study would include:

a. hypostatization--words for things that do not really exist:

vampire, werewolf, giant, fairy, gnome

b. portmanteaux words (blends or telescope words)--words made by putting two words together leaving out some letters:

smog (smoke + fog), motel (motor + hotel), brunch (breakfast + lunch)

c. euphemisms--replacing disagreeable words with more pleasant words:

undertaker (mortician-funeral director), malignancy (tumor or cancer)

Words from the Content Areas

Word study for the gifted in this area would be designed to develop a precise understanding of the key concepts in each particular area although many of the techniques mentioned above might be used for enrichment. Two

recently developed vocabulary activities that seem to be suited to the bright are (1) developing structured overviews and (2) developing and working with vocabulary reinforcement exercises.

Structured overviews is a relatively new approach in preteaching the major concepts of a particular unit. In this technique the teacher arranges the key concepts of a particular unit in a graphic display in such a way that the interrelationships among them could be seen and discussed. The gifted children may be asked to take these words and develop their own structured overview. Sometimes a picture or sketch might be drawn to make the activity more interesting. (See Figure 3)

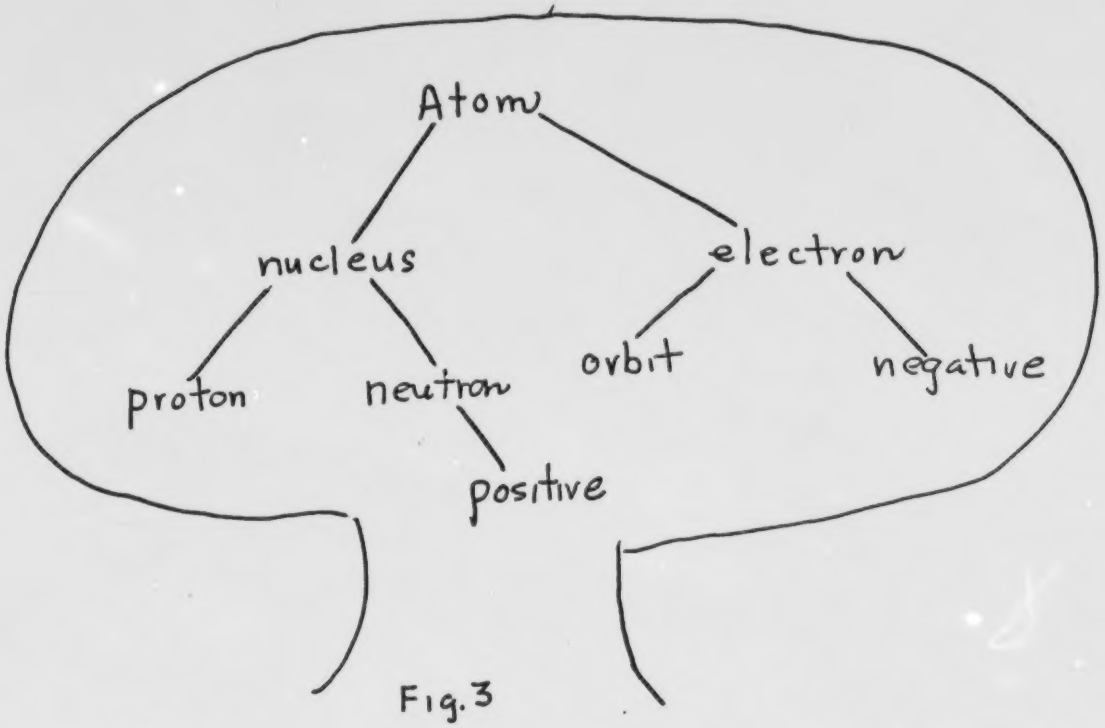


Fig. 3

Vocabulary reinforcement exercises (Herber, Vine 1967)also probe relationships. Using the same group of concepts repeatedly in different exercises, the students gain a more thorough understanding of these terms. Given below are seven different categories of exercises. It should be noted that the last three call forth a higher level of understanding than the first four. Gifted students may develop these activities themselves or the teacher can develop much more complicated exercises for them than for the average students in the class. It should be remembered that these are teaching exercises and not tests!

Vine (1967) gives the following types of vocabulary reinforcement exercises:

Defining the Word

Defining the word requires unaided recall of the meaning of the word and is more of a test than an exercise. They are useful in self-checking, however. Example: Write a meaning for anarchy. _____

Understanding Relationships

This type of exercise moves from pure recall to interpretation and teaches a deeper understanding of the terms. An example of this type exercise would be:

> In the group of words below there are three that are related in one group. The two that will be left are also related in some way. Identify each group of words and tell what relationship holds them together.
>
> Dictatorship Republic Representative Democracy Autocracy Monarchy
>
> Group I _____
>
> Group II _____

Analysis

Analysis is an interpretative level question and would be similar to the type of chart developed previously as a word feature analysis.

Analogies

These are the most difficult exercises of all and demand that the student understand the concept at a very high level. They are thus, most suitable for the brighter members in the class. Students fill in the blanks:

1. Prime Meridian: longitude _____ latitude

Word Play--Puns, Jokes, Riddles, Cartoons, Charades, Self-Describers, and Games

Some teachers make the mistake that the gifted student may not enjoy activities that are not abstract or scholarly in nature. To the contrary, these students usually enjoy word play more than average children because they usually develop a keen, if not different, interest in humor and play.

Numerous books on puns, riddles, and jokes exist for such activities, but current magazines and newspapers may be the best source. Most jokes, riddles, and puns are word-play that necessitate a keen mind. Having students search for such gems that give meaning to words is an interesting and creative method of teaching. Comic strips, cartoons, and puns built around words should be collected and shared. For the more advanced students

a search for such specific devices as malaphors, malapropisms, Tom Swifties, Spoonerisms, and Goldwynisms give a humorous approach to words.

Creative and revealing word-cues, or self-describers, will give the more artistically minded a chance to show words in a different medium. These are words pictured in such a way that they give a dimension of meaning to them. (See Figure 4)

Acting out words by showing their meaning through skits or charades is another way to bring about deeper understanding. The commercial Word Theater (Boning 1978) allows groups of two or three students create skits to teach the rest of the class the meaning of specific words. The author has experimented with teaching figurative language with popular songs so that music may add another dimension.

Manipulation of words may add another "fun dimension" for the gifted student. Listed below are some examples from Shipley (1977).

Reversible words--words that spelled backwards make another word:

diaper, gnat, rail, golf

Palindromes--a special type of reversible that reads the same right to left as left to right:

civic, kayak, repaper

Irreversible binomials--paired make equal sense but turned around would sound strange:

by hook or crook, town and gown

Swallow-word, kangeroo words or marsupials--words that consist of a word within that is a synonym. (The letters are not necessarily adjacent but in the right order.)

respite (rest), evacuate (vacate), catacomb (tomb)

Charitable words--words that give up any letter and still forms a valid word:

seat (sea) , boat (boa)

Hospitable words--words that can accept a letter any place and make a word:

rap: trap, reap, rasp, rapt

Amenable words--a word that can exchange any letter for another:

load: road, lead, lord, loan

Turnabout word--a word that can transfer its first letter to the last:

heart--earth, each--ache, emit--mite

Anagrams--the familiar letters of one term may be rearranged to form another word or words:

astronomers = no more stars or moon-starers

In summary, there are many, varied and interesting ways to teaching vocabulary in depth that should appeal to the intelligence, creativeness, and curiosity of the bright students in the regular classroom. In the hands of a dynamic, creative teacher they can stretch these childrens' minds to the limits of their verbal ability.

Boning, Richard. Word Theater, Barnell-Loft LTD. Baldwin, NY 1978.

Botel, M. How to Teach Reading. State College PA: Penns Valley Publishers, 1959.

Dale, Edgar and O'Rourke, Joseph. The Living Word Vocabulary, Dome Press, Inc. Elgin, IL, 1979.

Evanechko, D. "Children's Meaning Space", American Educational Research Journal, Fall 1972.

McCullough, Constance and Tinker, Miles A. Teaching Elementary Reading, Appleton-Century-Crofts, New York, 1968.

Pearson, P. David and Johnson, Dale D. Teaching Reading Comprehension, Holt, Rinehart and Winston, New York, 1978.

Severson, Eileen. "The Teaching of Reading-Study Skills in Biology," American Biology Teacher, 25 (1963).

Shipley, Joseph T. In Praise of English, New York Times Books, NY, 1977.

Vanderline, L. "Does the Study of Quantitative Vocabulary Improve Problem Solving?" Elementary School Journal, 65 (1964).

Vine, Harold A. Teaching Reading in the Secondary Schools, Syracuse University, 1967.

The Gifted Reader and the "Dark Is Rising" Sequence

by

Mercedes Ballou
Northern Kentucky University

Studies of trends and practices associated with the education of the gifted have continually supported the use of individualized approaches to reading, selection of materials that are more challenging than those used by non-gifted students, and differentiation of instruction (Barbe, Renzulli, Labuda, & Callahan, 1971). These are especially appropriate for introduction in the middle grades. Student interest in reading a range of materials is at a peak and the gifted student has acquired the vocabulary and developed the high level of reading ability (Witty, 1971) that such practices demand.

Recommendations for practice, made by leading authorities, reflect knowledge of these unique characteristics and lend credence to the use of the following procedures to provide gifted students in regular programs with the kind of reading instruction that will challenge them and promote development: selection of outstanding literature; formulation of reading purposes by teacher and student; and provision for independent reading followed by opportunities for analysis and evaluation of response.

The "Dark Is Rising" Sequence: Outstanding Literature for the Gifted Reader

The "dark is rising" sequence is a set of five stories whose setting is, ostensibly, twentieth century England. The use of the term "ostensibly" suggests that the setting varies, as it does, for Cooper has written a spell-binding imaginative story which leads the reader into the long-ago past as well as the present.

Reviewers, in analyzing the characteristics and qualities of the work have called attention to the conflict between good and evil, the use of Arthurian legend, English history and folk-belief, and the fine construction of characterization and plot. Their analyses, however, cannot convey completely the nature of the experience provided, but a brief review of the stories may provide further insight into the outstanding quality of these books and their appropriateness for the gifted middle grader.

The First Book

Over Sea, Under Stone (1965) is the first book of the sequence. Through it, readers are introduced to several characters who are reintroduced in the stories

that follow: Jane, Barney, and Simon Drew (young mortal people); Merriman Lyon, a mysterious scholar; and Mr. Hastings, a man who is an agent of the dark forces that threaten the lives of the Drews and the task that they have been destined to accomplish.

The story begins in Trewissick, a village in Cornwall, England. The Drews, on a holiday with great uncle, Merriman Lyon, discover an ancient map in the house in which they are living. The map contains clues to the location of a chalice believed to have existed during the time in which King Arthur lived. Through their own powers of reason and the help of Merriman, they are able to determine the location of the relic.

The story culminates with a confrontation between the Drews and Hastings and his accomplices, agents of the Dark.

The accomplishment of the task of recovering the chalice is the first in a series of tasks that Cooper sets for her characters as they take part in a struggle with human and non-human forces that symbolize evil. It is this struggle that provides the thematic element that pervades the entire sequence of stories.

The Second Book

In the second book, The Dark Is Rising (1973), Cooper introduces eleven year old Will Stanton, a character whose actions are foreordained by an ancient prophecy written on the chalice. He is one of the Old Ones, like Merriman Lyon, an immortal being with supernatural powers. He is destined to serve the cause of the Light.

It is the story of Will's awakening to his power, his learning of the spells that will help and protect him in his quest, and the testing of his power by the Dark. The testing comes as Will searches for the six Signs of Power that must be joined by him. These six Signs of Power will be needed in the last struggle for dominance in the world, a struggle vividly described in the last book of the sequence.

Will, called the Sign-Seeker, proves himself worthy for the greater "rising of the Dark: that is to come.

The Third Book

Greenwitch (1974), the third book, reintroduces the Drews: Jane; Barney; and Simon.

While vacationing, once again, in Trewissick, they learn that the Trewissick Grail that they had recovered in an earlier time has been stolen. Its finding and that of a manuscript that accompanied it are essential if the forces of Light are to prevail for it is one of the Things of Power. The task of finding the grail and manuscript involves the three Drews, Merriman Lyon, and Will Stanton. But it is Jane who is most responsible for the recovery of the manuscript. She is invited to attend a rite that is carried out each year

by the women of the village, a rite that requires the making of Greenwitch, a stone and vine "being" that is offered to Tethys, goddess of the sea, in exchange for a good harvest and to celebrate the coming of spring. Before Greenwitch is offered to the sea, Jane feels pity for it and wishes it happiness. Her wish is the reason for the eventual return of the manuscript.

When the grail is found, it provides the clues to the tasks that must be accomplished by those of the Light in addition to a prophecy that promises them success: "When the Dark comes rising, six shall turn it back." (Cooper, 1974, unpaged).

The Fourth Book

The setting of The Grey King (1977) is the valley in and around the Dysynni River in Wales. There, where the breath of the Grey King hands over the mountain called Caer Idris, literally "the seat of Arthur" in Welsh, Will Stanton, the last and youngest of the Old Ones, comes to recuperate from a serious illness. In this place, he is confronted by the power and forces of a great lord of the Dark, the Grey King.

The task set for Will is the finding of the golden harp that will waken sleeping warriors. He is aided in the completion of the task by a strange, albino boy whose parentage is a source of mystery. Bran, as he is named, learns that he was brought "out of time" by a woman called Gwen. His realization that he is the son of Arthur Pendragon is essential for he must exercise those rights and powers that are his in the quest that will lead him and Will to Pendragon's sword, the fourth and last Thing of Power needed to vanquish the Dark.

The Fifth Book

Silver on the Tree (1977) is the last book of the sequence. Through it, Cooper presents the climax of the struggle between the forces of the Light and the forces of the Dark.

Set amidst and swirling mists of a Welsh background, Will, Merriman, the Drews, and Bran are reunited in the exciting conclusion that leads to the vanquishing of the Dark with the aid of the signs sought and found by Will during the time of his awakening.

Analytical Remarks

The five books, read in sequence, provide the reader with a logically developed pattern of action which leads to a satisfying conclusion in the last book. The prophecies have been fulfilled, the tasks accomplished, and the Dark overcome.

Teachers who introduce this sequence of stories may want to consider which of the stories would be most appropriate in terms of prior knowledge.

The first three books, for example, do not require knowledge of history or of English legend for full comprehension. Gifted students may become interested in discovering more about the sources of s me content but it will not present them with barriers to understanding. It is also apparent from a reading of the sequence that the first books, read prior to the last, provide clearer answers

to questions that may be raised about the nature of the Old Ones, the "forces" of the Dark, and the reasons for the quest. Although some of these answers can be inferred from careful reading of the last two, choosing one of the first three books before introducing the last two is a recommended practice. Either The Dark Is Rising or Over Sea, Under Stone are appropriate for introductory purposes. Greenwitch should be considered a sequel to the first book.

The reading of the last two books of the sequence should be preceded by or accompanied with some experiences that lead to awareness of King Arthur as figure of legend and as a symbol of good. Such experiences would result in more complete comprehension as well as extension of knowledge.

Another consideration, before introducing literature of any kind, is the interest or preference, of gifted students. If preference is unknown or conjectural, The Dark Is Rising would be a plausible first choice. Its main character, an eleven year old boy is one with whom middle grade students can identify. The presentation of the supernatural through the actions of characters is also appealing.

If a decision is made to recommend that one or a small group of gifted readers read The Dark Is Rising, goals for reading and ways of revealing response can be individualized so that students can work independently and respond in a personal manner.

Individualizing Goals and Guiding Personal Response

Procedures for individualizing goals and guilding response are particularly appropriate at the middle grade level because students have had prior exposure to goals and to responding orally and in writing to what they have read. However, introduction to any selected book from a sequence such as the one described should provide the teacher with needed information about what has been supposition up to the point of introduction--extent of interest and level of response to be expected. By involving the student in the formulation of goals for reading, teachers can provide a context in which interest or preference can be expressed.

The formulation of goals or purposes for reading can best be completed during a teacher-pupil conference. Some plausible goals or purposes for reading The Dark Is Rising could include the following: (1) to find out if this book is of interest to me; (2) to find out what the title means; (3) to compare this story with others I have read; and (4) to decide if I want to read others in the sequence.

Following the formulation of these purposes for reading, the student, or students, should be taught a procedure for recording personal responses. This may take the form of writing down words, phrases, and paragraphs and the accompanying page numbers. (Febhardt, 1979). These written responses should represent something that is of interest to the student and something which can be associated with the purposes for reading. It may also include comments or remarks about what has been recorded.

Upon completion of the reading, at an agreed upon time and day, the personal responses should be discussed with the student in a teacher-student conference. The responses should be discussed so as to enable the student to realize that he or she has not provided evidence of meeting reading goals. Additional discussion should help the student to extend his/her responses and to become aware of what the responses reveal. This last aspect of the discussion is the most demanding for it requires extensive knowledge of the story, its implication, use of literary devices, and so on.

The conference culminates with a review of what the student has revealed and a choice of another book to read. Students who continue reading the Cooper sequence can be guided to formulate purposes for reading that will require examining relationships between characters, the relevance of the theme for today's society, and the effectiveness of Cooper's use of historical events and legendary characters in creating a desired effect. As students grow in ability to establish purposes and to respond in increasingly mature ways, options to written records may be introduced. These may take the form of art productions, film productions, or other productions that will reveal response.

Summary

Studies of trends and practices associated with education of the gifted reader have been the basis for recommendations regarding desirable practices. These have been identified as have the characteristics that distinguish the gifted reader from the non-gifted. The desirable practices have been interpreted in terms of individualizing the reading of a highly acclaimed sequence of stories for young people, of helping gifted readers to formulate their own goals for reading, and of guiding them to analyze their personal responses. Suggestions were made for individualizing beyond the introductory stage.

* * * \

Reference List

Barbe, Walter B., Renzulli, Joseph, Labuda, Michael & Callahan, Carolyn. Innovative reading programs for the gifted and creative. In Paul Witty (Ed.), Reading for the Gifted and Talented Student. Newark: International Reading Association, 1971.

Cooper, Susan C. Over Sea, Under Stone. Illustrated by Margery Gill. New York: Harcourt Brace Jovanovich, 1965.

. The Dark Is Rising. Illustrated by Alan E. Cober. New York: Atheneum, 1973.

. Greenwitch. New York: Atheneum, 1974.

. The Grey King. Illustrated by Michael Hislop. New York: Atheneum, 1975.

. Silver On The Tree. New York: Atheneum, 1978.

Gebhardt, Richard. Strategies for teaching complex literature to general students. English Language Arts Bulletin, Fall, 1979, 20(30), 1-5.

Witty, Paul. Characteristics of gifted and creative pupils and their needs for reading experience. In Paul Witty (Ed.), Reading for the Gifted and Talented Student. Newark: International Reading Association, 1971.

Who Has His "Hands On" the Elementary Science Curriculum?

by

Bettye Lou Jerrel
Evansville-Vanderburgh School Corporation

Interest in science textbooks has greatly increased during the past five years. This interest is viewed with alarm by some proponents of "hands on" science teaching, while other curriculum specialists see it as positive, especially since publishers have included more laboratory activities for all students.

Historically, interest in science curriculum has been correlated with the social and scientific events of world magnitude. For example, the Russian launching of Sputnik in the late 50's prompted the most ambitious educational reform movement ever undertaken in science and mathematics. The National Science Foundation poured over a half billion dollars into projects in the two fields.

The programs that were developed with NSF support were all carefully conceived and complemented by imaginative materials. Three different kinds of programs for elementary school science are generally recognized: A Process Approach--SAPA, Science Curriculum Improvement Program--SCIS, and the Elementary Science Study--ESS. These creative programs were designed to take learning from the passive pages of textbooks to the manipulating fingers of eager young scientists. Science concepts would be learned by "doing".

Teachers were trained in the methods of process teaching, and the three alphabet programs were introduced into hundreds of classrooms. The success of the program often depended upon the availability of money to buy necessary materials and the confidence with which the teacher approached the new methodology. For the most part, however, youngsters did look forward to science class.

Today very few NSF activity-based science programs are being used. There are many reasons, but the two most often expressed seem to be management and lack of re-enforcement material. An elementary science teacher had to assemble the individual bits and pieces of the hands-on activities and maintain a management system as the youngsters experiences the daily activities. A concept becomes more elusive if the teacher is insecure with a classroom full of youngsters exploring and experimenting in an unstructured situation. Yet, as Piaget tells us, thoughtful manipulation of concrete objects is the best way for youngsters to learn.

As the pendulum swings between a no-textbook approach to the traditional textbook another issue has arisen that seems to be making an impact. It

centers on the nagging question, "What are we doing for the gifted student?" Publishers have been most sensitive to this issue recognizing the problems that must be faced when they prepare written materials that will accommodate the full spectrum of student abilities.

The emphasis on reading and mathematics during the 70's was prompted by a socio-economic issue. Employers and educators admitted publicly what many had suspected for years. Diplomas were being given to many non-readers. This fact was appalling to everyone. So once again an impetus was created for pumping money into a specific area of education.

Again publishers reacted to the market economy. Innovative programs abounded. Included in these new approaches were materials for the gifted and talented, and the educational community reacted. In Indiana, gifted and talented legislation was introduced. School boards throughout the state called for teachers and administrators to search out these special students and encourage them.

As in most states Indiana has a two-level process for selecting curricula. First, the General Commission of the State Board of Education adopts criteria, and then the Textbook Commission screens programs for acceptability. Local districts or schools select from a certain number of textbooks and programs that survive the screening. Local control is considered critical by most educational leaders in this final step of the selection process. At this point the unique character of the community and the desires of the parents and educators will ideally result in programs best for the children.

Gifted children will receive more attention during the 1980 science textbook and program adoption in Indiana. Again, educators are reminded of Piaget's urging that learning is improved if youngsters have experiences with concrete objects. To act thoughtfully upon these objects seems to require a hands-on approach to teaching science. Publishers are openly stressing the benefits of their textbook and programs for the gifted student. Many teachers' editions explain different approaches available for the wide range of abilities found in most classrooms. Easy-to-set-up experiments abound as the hands-on approach appears in full bloom in the new science textbooks. Indeed a compromise between the traditionalist and the hands-on advocates has been achieved.

Nineteen hundred eighty will be a good year for science teachers. The screening of materials will result in many exciting programs for the local schools. Impetus is there for seeking out the gifted and talented, developing curricula that will challenge the natural inquisitiveness of these youngsters. The decade of the 80's will see the emergence of science education as a means of strengthening the very fibers of our country--invention, improved health, consumer awareness, and a better standard of living for all.

The Gifted and Talented: Implications for Teaching

by

Robert E. Mays and Charles J. Bertram
Indiana State University-Evansville

The noted historian, Arnold Toynbee, once commented:

> "The Creator has withheld from Man the shark's teeth, the bird's wings, the elephant's trunk and the hound's or horse's racing feet. The creative power planted in a minority of Mankind has to do duty for all the marvelous physical assets that are built into every speciman of Man's non-human fellow creatures. If society fails to make the most of this one human asset, or if worse still, it perversely sets itself to stifle it, Man is throwing away his birthright of being the Lord of creation and is condemning himself to be, instead, the least effective species on the face of this Planet."

Our universal system of education is being tested at its margins. It seems to function fairly well in educating the majority of students in the middle or normal range of abilities, but appears to be less effective with exceptional groups of either low or high abilities.

There has been in the past, national concern with education for the gifted and talented. This was due largely to the launching of Sputnik by the Soviet Union in 1957, which resulted in a great deal of emphasis being placed on better instruction in mathematics, the sciences, and foreign languages - curriculum areas which have always been quite appealing to the intellectually gifted. However, in the sixties, the emphasis shifted to a strong national commitment to civil rights and improving instruction for millions of previously neglected students classified as disadvantaged.

More recently, our society has become more aware of handicapped students and has established the providing of an education for them as a national priority. This has resulted in the introduction and passing of much state and national legislation to guarantee the educational opportunities for our handicapped students.

Our society has placed less emphasis on the "extraordinary few" who have exhibited exceptional ability and talent - the few who will be key members of the next generation of leaders, developers and producers of innovative ideas that will guarantee and improve the quality of life for our citizens.

The problem with developing special programs for the gifted and talented in a public system of education lies in democracy's perennial dilemma over supporting excellence and equality simultaneously. If there is too much

emphasis toward excellence, a special kind of elitism could be created; if there is extensive leaning toward equality, outstanding potential is lost, which means a possibility of leveling down to mediocrity. The continued improvement of educational opportunities for the disadvantaged and handicapped need to continue; however, it is necessary to recognize the exceptional needs of the gifted, as well.

Who Are the Gifted and Talented?

The gifted and talented as a group, make up a largely unidentified minority that is included in all segments of society. Many gifted and talented students usually operate in isolation. These young people must be identified and meaningful programs developed. Some general guidelines for describing the gifted and talented are provided by the U.S. Office of Education by the following definition:

> Gifted and talented students are those identified by professionally qualified persons who, by virtue of outstanding abilities, are capable of high performance. These are the students who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contributions to self and society.

Correll (1978) points out that the target population can be defined as the upper 3 to 5% of school-age children and youth who demonstrate exceptional promise in general intellectual ability, specific academic aptitude, creative or productive thinking, psychomotor ability, leadership, and achievement in the visual and performing arts. Incumbent in this definition is the trend away from the perennial idea of giftedness as simply the ability to achieve high scores on an intelligence test.

In summarizing several studies emphasizing the gifted and talented, Correll lists the following facts:

> Gifted and talented youth are a unique population differing markedly from their peers in abilities, talents, interests, and psychological maturity.
>
> They are the most versatile and complex of all the groups we serve in our schools, yet are the most neglected groups when it comes to special educational needs.
>
> Their sensitivity to the existing school environment, which is focused on the average student, makes them especially vulnerable, with the result that they are likely to conceal their giftedness.

Sydney Marland (1971), Former U.S. Commissioner of Education, in a report to Congress stated:

> "The relatively few gifted students who have had the advantage of special programs have shown remarkable improvements in self-understanding and in ability to relate to others, as well as improved academic and creative performance. The programs have not produced arrogant, selfish snobs: on the contrary, studies show that special programs have extended a sense of reality, wholesome humility, self-respect, and respect for others."

The gifted and talented are a natural resource that has for the most part, been underdeveloped and neglected. In order to develop their full potential, society needs to provide these students with the proper educational settings and forums. Intellectual and creative talent cannot outlive educational neglect and apathy. It is to society's advantage to see that those persons who have the potential to make extraordinary contributions can develop to their fullest.

Beginning with Terman's (1925) exhaustive longitudinal work, many studies of characteristics have been made over the past 50 years. An overview of Terman's findings is presented here.

1. The interests of gifted children are many-sided and spontaneous; They learn to read easily and read more and better books than the average child. In addition they develop numerous collections, and cultivate many kinds of hobbies.

2. The superiority of gifted over unselected children was greater in reading, language usage, arithmetical reasoning, science, literature, and the arts.

3. When compared with unselected children, they are less inclined to boast about their knowledge; and are more trustworthy when under the temptation to cheat. Their character preferences and social attitudes are more wholesome, and they score higher on tests of emotional stability.

4. The deviation of gifted students...is in the upward direction for nearly all traits. There seems to be no law of compensation whereby the intellectual superiority of the gifted tends to be offset by inferiorities along non-intellectual lines.

Since Terman, many lists of traits have been developed by various researchers, geared to serve as a composite profile of the gifted and talented. Included here are some "learning characteristics" of gifted children developed by May V. Seagoe (1974), along with some possible concomitant problems.

CHARACTERISTICS	CONCOMITANT PROBLEMS
1. Keen power of observation; naive receptivity; sense of the significant; willingness to examine the unusual	1. Possible gullibility
2. Powers of abstraction, conceptualization, synthesis; interest in inductive learning and problem solving; pleasure in intellectual activity	2. Occasional resistance to directions; rejection or remission of detail
3. Interest in cause-effect relations and ability to see relationships; interest in applying concepts; love of truth	3. Difficulty in accepting the illogical
4. Liking for structure and order; liking for consistency, as in value systems, number systems, clocks, calendars	4. Invention of own systems, sometimes conflicting
5. Retentiveness	5. Dislike for routine and drill; need for early mastery of foundation skills
6. Verbal proficiency; large vocabulary; facility in expression; interest in reading; breadth of information in advanced areas	6. Need for specialized reading vocabulary early; parent resistance to reading; escape into verbalism
7. Questioning attitude, intellectual curiosity, inquisitive mind; intrinsic motivation	7. Lack of early home or school stimulation
8. Power of critical thinking; skepticism, evaluative testing; self-criticism and self-checking	8. Critical attitude toward others; discouragement from self-critical
9. Creativeness and inventiveness; looking for new ways of doing things; interest in creating, brainstorming, freewheeling	9. Rejection of the known; need to invent for oneself
10. Power of concentration; intense attention that excludes all else; long attention span	10. Resistance to interruption
11. Persistent, goal-directed behavior	11. Stubbornness
12. Sensitivity, intuitiveness empathy for others; need for emotional support and a sympathetic attitude	12. Need for success and recognition; sensitivity to criticism; vulnerability to peer-group rejection
13. High energy, alertness, eagerness; periods of intense voluntary effort preceding invention	13. Frustration with inactivity and absence of progress

14. Independence in work and study; preference for individualized work; self-reliance; need for freedom of movement and action	14. Parent and peer-group pressure and nonconformity; problems of rejection and rebellion
15. Versatility and virtuosity; diversity of interests and abilities; many hobbies; proficiency in art forms such as music and drawing	15. Lack of homogeneity in group work; need for flexibility and individualization; need for help in exploring and developing interests; need to build basic competencies in major interests
16. Friendliness and outgoingness	16. Need for peer group relations in many types of groups; problems in developing social leadership

Lucito (1972), compiled the following list of characteristics of creative children, from summaries by E. P. Torrance and J. Gallagher.

1. View the world with extra wonder and see magic in it.
2. Learn by experimenting, manipulating objects in many ways, and using stories to exercise their imaginations at preschool age.
3. Are able to be conforming or nonconforming as the situation demands.
4. Try to find answers to their questions in their way.
5. Have extremely long attention spans and the ability to pursue an activity in which they are interested for extra-long periods of time.
6. Can tolerate disorder and ambiguity.
7. Are able to organize themselves and ideas.
8. Tend to see familiar things and situations in unusual ways and in greater depth.
9. Often prefer to learn by creative ways rather than being told by an authority.

10. Seem to learn considerably from fantasy as it aids in solving their problems of development.

11. Display a positive self-image.

12. Have an attraction toward the unconventional and toward complexity.

13. Seem to rely more on their own evaluations than on others.

14. Come from family backgrounds characterized by a lack of overdependence on parents and a lack of stress on conformity by parents; strong feelings are expressed in the family; both fathers and mothers relate strongly and positively to the child even though the mother is ambivalent in her mothering feelings; more often than not, the most creative child is the older sibling; fathers are usually engaged in occupations allowing for autonomy and independence.

15. Build a reputation for having wild or silly ideas, particularly the boys.

16. Display humor, playfulness, and relaxation in their creative products.

17. Wish to work alone at times.

18. Are high academic achievers provided they have a minimum IQ score of around 120.

19. Can integrate opposing impulses such as destructiveness and constructiveness.

20. Select fewer conventional occupations (e.g., lawyer, doctor, professor) and select more unconventional ones (e.g., adventurer, inventor, writer).

Teacher Training

What should be the primary function of preparing teachers to effectively deal with the teaching of the gifted and talented? This question has seldom been considered. If we study and examine the programs of almost any teacher training institution, we will find that there is little differentiation of preparation in terms of the way students learn, the kinds of learning problems they encounter, or the levels of aspirations they bring to the classroom. Except for some select areas, differentiation of the teacher education curriculum reflects subject matter divisions and the functions to be performed by school personnel.

Experts in education of the gifted and talented strongly advise specialized teacher preparation, continued professional study, and numerous contacts with other teachers of the gifted. Many of these experts believe that there should be subsidies for training, developing teacher centers, and inservice preparation for those already in the profession. Inservice training should not only include teachers, but administrators, psychologists, and counselors, as well.

R. Martinson (1972) further emphasizes the need for special preparation of teachers:

Successful programs showed that special preparation of teachers is mandatory. Teachers who have such preparation tend to be sympathetic to the gifted and talented; and to provide them with necessary learning opportunities. This preparation should be extended to the total educational profession and to the public at large so that the gifted and talented may be widely encouraged to use their abilities. The result would be greater numbers of gifted political leaders, inventors, creative artists, educators, medical personnel, and others contributing to society on its problems. The result would be a better future for all Americans.

The Teacher: Desirable Characteristics

Many educators take pride in setting down long lists of desirable characteristics of teachers of the gifted and talented. After internalizing such a list, one could very easily get the impression that no mortal being can live up to such a set of characteristics. One such list is defined by Gallagher (1975):

Good health and physical superiority
Versatility of interests
Creativeness and originality
Unusual proficiency in teaching subjects
Participating member of the Community
Clear and consistent philosophy of education
Knowledge of theories of learning
Excellent sense of humor
Abundant physical energy

There is probably more nonsense and less evidence apportioned about the needed characteristics of the teacher of the gifted and talented than almost any other single issue. Gallapher's list of the all-encompassing virtues of teachers of the gifted and talented is a good example. Bishop (1968) devised a study utilizing student opinions to choose successful teachers of the gifted, and then studied a group of thirty such teachers intensively through interviews and tests. The following summary of traits were revealed.

The successful teachers were found to be mature, experienced, and superior intellectually. Bishop also found that the successful teachers were more interested in literature, the arts, had high personal achievement needs, and were seeking their own intellectual growth through teaching. They seemed to be more student-centered, have a stimulating classroom, and were very supportive of special educational programs for the gifted.

Bruch and Torrance (1972),in summarizing the current and rather broad view on the kinds of teacher characteristics that fit the needs of creatively gifted children, lists the following:

1. Teachers should care about their pupils. It is not important that teachers be highly intelligent or good-looking (though they should dress neatly), but it is very important that they be interested in and assist and guide young people.

2. Teachers should be honest. Admission of mistakes, rather than bluffing as infallible experts, is desirable.

3. Teachers do not have to be strict. Although firmness is rated as "fairly important," the nations of the "tightship" strictness, "touch" disciplinary methods, and a quiet classroom are rejected.

4. Teachers should trust their pupils. Pupils apparently realize that adults need to have confidence in the young person's ability to act responsibly.

If special programs are going to be developed to assist the educational development of gifted and talented students; there is no doubt that personnel modifications will have to be made. But what? Are we going to retain the elementary and secondary school teachers in special content areas, unique instructional techniques, or both? Should special training programs for teachers of the gifted and talented be developed? Should there be special classes, workshops or institutes for educational administrators? Which? How much of each?

We, as educators, must strive to resolve the aforementioned concerns, thus, making sure that America remains in fact, as well as in theory, the land of opportunity for all.

REFERENCES

Bishop, W. "Successful Teachers of the Gifted". Exceptional Children, 1968, 34, 317-325.

Bruch, C. "A Proposed Rationale for the Identification and Development of the Gifted Disadvantaged". Gifted Child Newsletter, 1970, 12, 40-49.

Correll, M. Teaching the Gifted and Talented. Bloomington, Indiana: Phi Delta Kappa Educational Foundation, Fastback Series 119, 1978.

Gallagher, J. Teaching the Gifted Child. 2d ed. Boston: Allyn and Bacon, 1975.

Lucito, L. Creativity Traits. Atlanta: Georgia State University, 1972.

Marland, S. Education of the Gifted and Talented: Report to the Congress of the United States by the U.S. Commissioner of Education. Washington, D.C.: U.S. Office of Education, 1971.

Martinson, R. "An Analysis of Problems and Priorities: Advocate Survey and Statistics Sources". Education of the Gifted and Talented. Report to the Congress of the United States by the U.S. Commissioner of Education and background papers submitted to the U.S. Office of Education. Washington, D.C.: GPO, 1972.

Seagoe, M. "Some Learning Characteristics of Gifted Children". In The Identification of the Gifted and Talented, edited by R. Martinson. Ventura, California: Ventura County Superintendent of Schools, 1974.

Terman, L., et al. Genetic Studies of Genius. Volume I: Mental and Physical Traits of a Thousand Gifted Children. Stanford, California: Stanford University Press, 1925.

Torrance, E. "Broadening Concepts of Giftedness in the 70's". In S. Kirk and F. Lord (Eds.), Exceptional Children: Educational Resources and Perspectives. Boston: Houghton Mifflin, 1974.

Torrance, E. P. Gifted Child in the Classroom. New York: Macmillan, 1966.

Let's Integrate, Not Segregate, in Educating the Gifted

by

Dorothy I. Seaberg
Northern Illinois University

Julie's mother was jubilant. "Just think," she announced triumphantly, they're getting poetry and creative writing in the gifted program. Julie's just thrilled with it... And she's so cute about it, too! She says she knows why they're in the class -- "It's 'cause of our background and high I.Q.'s!'"

Julie's mother prattled on unabashedly. "But," she finally admitted, "I'm concerned about Paul. He didn't want to be in the class because he doesn't want to miss recess. I don't know what to do about him!"

My professional backbone bristled as I listened to my friend's latest anecdote. But before I could respond she said, "Isn't it a shame you have to be gifted in order to read and write poetry? And isn't it a shame you have to miss recess because, when you're gifted, you don't have time to play?"

Exasperating? Yes. The exception rather than the rule? I'm not so sure. I'm afraid this vignette is symptomatic of what is really happening in programs for the gifted.

The usual practice in gifted education is to segregate children with special talents, notably high I.Q., into special classes for a part if not all of the school day. They have special teachers, special stimulation, and special curriculum, often with special funding. But is it wise to syphon off the gifted like a separator swirling milk, the cream going to the right and the skim milk to the left? Who is to say who is gifted and who is not? After all, skim milk contains many essential nutrients that cream does not.

Two arguments for special education of the gifted are juxtaposed. In reali they are two sides of the same coin: Society can't afford to waste the talents of the gifted; gifted children need their potentials developed for self fulfillment. Some see society as a giant uncontrollable roller coaster headed for the brink unless sophisticated technology or scientific social engineering intervenes to steady the careening run-away cars. "We need to develop the talents of the gifted for scientific advancement," they say. Others see the next great breakthrough as social problem solving. They envision a just and transformed society where man will develop his potentials fully and social ills will heal. But the leadership of the gifted must be harnessed in order to bring this scenario to pass. "Special programs for the gifted are a mandate," they say.

But doesn't society need the best from all of us to be transformed? And don't we all need self-fulfillment? Can individual selves really be fulfilled if they don't contribute in some socially useful way? These are hard questions but they suggest a strong case for an integrated rather than a segregated approach for educating the gifted.

Integrating has long been sought as a social goal in our pluralistic society. The classroom is a mini-society of the broader social spectrum where integration can begin. Racial integration in the schools is a federal mandate. Now, also, children formerly targeted for special education are being integrated or mainstreamed into the regular classroom, the least restrictive environment, in order to maximize the possibility of their social survival.

But what about the need for integrating those "special" gifted people with the more ordinary folk? Should we not mainstream the unique talents and personalities of all our children so that they can learn better how to appreciate and help each other? Through living and learning together will they not more likely develop egalitarian social attitudes? Afterall will not rubbing shoulders in an integrated classroom be the best preparation for the gifted as they enter the work force of the macrosociety later on in life?

Social integration is not the only issue. I submit that an integrated curriculum is as necessary as an integrated classroom to best develop the potential of all children. In a segregated curriculum with fifteen minutes for this and twenty minutes for that, a worksheet for this, a workbook for that, with separation of skills from purposeful activities, it is impossible for any child to meet his real learning needs. Small wonder we've had to develop special programs in order to bring out the creative potential of the gifted!

Those engaged in mind-brain research have startled the educational community with the finding that the left brain directs analytical thinking while the right brain controls intuitive, creative thought. Most school tasks are designed to develop the left brain, the linear patterns of thought. In the integrated curriculum, many life related experiences are provided to tap right-brain functions, or better yet to integrate right and left brain thinking, while the individual is engaging in meaningful work. It is entirely possible that many children not identified as gifted possess a rich potential in right-brain thinking and are missing out on the kind of education they badly need.

But how can we achieve integration in a curriculum that is crowded with basics and state mandated programs? Impossible as it may seem, there is a way out. In integrating the curriculum, teachers should look for organizing foci around which most school activity can revolve. The social studies, too often shoved to one side, provides such an organizing center if taught from a unit approach. In the unit, children work together to investigate an issue or solve a problem. Solving genuine problems taps critical and creative thinking and creates a need for using communication skills. Under the unit umbrella, children may undertake differentiated tasks that tie in with their interests and abilities while contributing to the whole class endeavor.

I know a kindergarten that is working on a circus unit solving the problem, "How can we create our own circus?" Under the "big top" (crepe paper streamers draped suggestively from a central pivot in the ceiling) the children are learning about the ring master, the clown, the tight rope walker, the acrobat and a baker's dozen of assorted trained animals. In the process of putting on their own circus, each child is using his special interest or asset. Cooperation is essential and there is time to appreciate everybody's act.

In an older grade, the problem might be "How are modern Japan and the United States alike and how are they different? Why?" In finding answers to these questions, the gifted might do extensive research in the library, do oral or written reports or even develop media packages. They can help the less able children to be researchers, too, and they can serve as leaders of committees or study groups. They can be writers compiling difficult or hard-to-find information, helping to write a "book" for the class in the children's own language. They can write imaginative stories. The gifted artists, and those not so gifted, can explore Japanese water color techniques. They can generate poetry in the Haiku form. Most children can enjoy and succeed with these art forms, even the children thought not to be so gifted.

Many classroom teachers create learning centers to provide interesting options for children in connection with units of study. I suspect that more teachers would create centers if they had more time. Why not harness the talents of the gifted to help create these centers? Once initiated, gifted children are capable of thinking up activities and doing the necessary research and writing. They can design and make posters or backdrops and ingeneous holders in which to house and display the steps of a learning station.

We hear much today about "think tanks" in industry and technology. Why not let two or three enterprising gifted children form a "think tank" to generate activities in which they can involve others? Math and science are fields in which gifted children can carry out special experiments they may have generated in their "think tanks" or they can create games that other children may use. Learning to think and solve problems cooperatively might well be taught in the "think tank" context. If children can be taught sensitivity in working with and listening to others, they can also become capable tutors for classmates needing help. These kinds of experiences may well be the best kind of preparation for taking on the responsibilities of adulthood.

Most of the suggestions I have made require problem solving and divergent thinking. The big payoff in problem solving is that it develops rational thinking. Gifted children are adept in seeing relationships among different concepts or even different fields of knowledge. Seeds are sown for interdisciplinary and transdisciplinary thought. The power of holistic thought, begun in the early years, will hopefully be used later in life in solving complex personal and societal problems.

The ultimate goal of gifted education should be to develop the integrated person--one who is fully-functioning and able to explore the full range of his potential. But isn't this the goal for the "non-gifted" too! To become integrated we need to be comfortable with ourselves, to feel okay. And feeling comfortable about ourselves happens only when we feel comfortable

with others--all kinds of others. A positive self-concept or an okay feeling about ourselves is both pre-requisite and co-requisite in developing potential. A supportive environment in an integrated classroom can make all children feel good about themselves, safe to explore, free to take risks and able to accept the challenge of testing their limits.

Integration, I propose, is the key to providing a proper education for the gifted. But when it comes right down to it there really is no such thing as a non-gifted child and thus no need to segregate. The non-gifted are merely those who have not been recognized and valued for their uniqueness and who therefore fail to see that they have a contribution to make.

An integrated curriculum in an integrated classroom best develops the integrated person. Social integration, ideational integration, and personal integration result in holistic education or education of the whole person. Holistic education develops potential and flowers best in a natural social environment. The advantages of the integrated approach are clear. Let's integrate, not segregate, in educating the gifted!

A Holistic Approach to Future Studies

by

Betty Barclay Franks
Carnegie Mellow University

and

Mary K. Howard
John Carroll University

Gifted students have the abilities and skills to understand the methods and concepts of future studies, but all too often do not have the futures mind set. In helping students develop their understanding of futures concepts and methods, teachers should not neglect attitudes such as having a positive self-image; taking a holistic approach to problem solving; integrating mind, body, and spirit; and stressing the three c's--creativity, compassion, and commitment. Doing so will enable students to acquire a holistic approach to knowledge and their own lives.

Because gifted students can think in abstract terms, they can more readily grasp the futures concepts of the interrelatedness of past, present and future, alternative thinking, the interrelated nature of systems, and the unexpected and long-range consequences of current decisions. A time line can help students visualize the effect of past events on their present lives and their personal futures. Gifted students can interrelate several time lines and should think about the effect of technological innovations, social changes, political events, and scientific discoveries on one another as well as on individual human futures.

Teachers should caution students that it is difficult to pinpoint the exact date of a scientific discovery, that a time lag often exists between the discovery of new knowledge and its widespread use, and that change in one area often has unexpected consequences. To illustrate the important concept of alternative futures, students should mark the turning points where alternatives existed and then discuss how the future would have been different if these alternatives had been pursued. In mixed-ability classes, average students can draw the time lines while the more gifted students can see the interrelationships and suggest a variety of alternatives.

Gifted students have the prerequisite skills necessary to handle the various futures forecasting methodologies. They have the mathematical skills needed to conduct Delphi studies, to chart trend extrapolations, and to prepare cross impact matrix analyses. They have the ability to organize their thoughts and to think logically which are necessary in order to write a scenario.[1] Because gifted students have enriched vocabularies, they can read the works of the major futurists. This is important because few texts

exist which have been designed for secondary students. In mixed-ability classes, some teachers have asked their gifted students to write summaries of the ideas of major futurists and then duplicated these for other students to read.

Because gifted students have these skills and abilities, the futuristics educators who work with them are often tempted to devote more time to units dealing with forecasting methodologies and the ideas of the major futurists. When this happens, teachers neglect creativity and imagination which are so much a part of future minding. Gifted students frequently assume that such stimulants to creativity as making collages, brainstorming, and role-playing are a "waste of time" because, to them, learning involves a book or a lecture by an expert. A healthy mixture of scientific forecasting methodologies and activities which stress the importance of developing new perspectives is necessary in taking a holistic approach to future studies.[2]

The traditional curriculum does not take a holistic approach to knowledge or the individual. For this reason, even gifted students have difficulty developing the futures mind set. Future studies often makes them uncomfortable because the holistic approach challenges their ideas about learning.

Because of their abilities and skills, gifted students have little difficulty solving textbook problems. For some, exploring the unknown poses a threat because the answers cannot be found in textbooks. In future studies classes, gifted students find themselves gropping for responses like everyone else. They soon learn that there are different approaches to the future and that not all futurists agree as to what action should be taken in the present. For those students accustomed to consulting the experts, this experience can be quite disconcerting. We have found that involving students in simulated experiences is a good way to introduce them to the unknown, to emphasize the importance of working with others to explore complex futures issues, and to examine the long-range consequences of current decisions.[3]

Throughout their education, gifted students have come to believe that there are "no limits to learning." Their primary objective as students has been to acquire as much knowledge as possible. Many gifted students picture themselves as tomorrow's researchers and have hopes of contributing to the growing body of knowledge. They may be surprised to learn that futurist Robert Heilbroner believes that human survival may well depend on placing limits on individual freedoms even in the area of research. One way to explore this view is to have the students debate the question of placing limits on knowledge and restricting certain types of research.[4] To make this topic of interest in a mixed-ability class, students must be able to see the effects of the research on their personal futures.

While the traditional curriculum compartmentalizes learning, futures classes should not. Students accustomed to thinking about specific fields of knowledge rather than knowledge as a whole find it difficult to take a holistic approach to learning. This is particularly true for gifted students who are frequently experts in one subject area. It is important for these students to understand what futurist Herman Kahn means when he refers to "educated

incapacity." Kahn warns that a person can become so specialized that he/she fails to look at a problem from a number of different perspectives, thereby missing a possible solution.[5]

When discussing topics such as the biological revolution, futuristics educators should take a holistic approach and explore the moral, ethical, legal, and psychological remifications of these proposed changes.[6] In mixed-ability classes, lower ability students often bring a non-academic perspective to the subjects under discussion. Futurist Robert Theobald argues that non-experts should have an important role in futures planning because it is their future, too.[7]

Another way of insuring a holistic approach is to involve students in the planning of the course. When students plan a course together, they have to consider a variety of disciplines and points of view. In a class of mixed-ability students, group projects can be a way of forcing gifted students to temporarily relinquisn their competitive roles. Working with others and sharing information are important aspects of the futures mind set.

Teachers of gifted students have to examine the future-focused role-images (the way the students envision themselves in the future) of their students.[8] In some instances, in spite of their abilities, they will not see themselves as able to affect the future. In other instances their image will be too narrow and they will picture themselves as doing only one thing in the future without considering any alternatives. Having students write future autobiographies is a good way to discuss this problem and to help students examine a variety of different future possibilities.

Schools generally educate the mind in academic classes, the body in physical education classes, and neglect the spirit.[9] In order to truly prepare students for the future, the goal should be to integrate and discipline all three areas. Often gifted student place the emphasis on the left hemisphere of the brain to the exclusion of the right hemisphere. Futurists such as George Leonard stress the importance of integrating and disciplining mind, body, and spirit.[10] One way to bring this to the attention of students is to have them look at their future autobiographies. Most students do not mention any plans for the development of body and spirit. The class should then consider the implications of these projections for both their personal and societal futures.

Futures classes should emphasize not only the three r's, but the three c's--creativity, compassion, and commitment. Future minding involves more than just an exploration of the future. Unless students return to the present and take action, they have done nothing more than participate in an exercise in theory.

Students can become involved in all three areas when they identify a futures need and create a project designed to help others have a better future. Either individually or collectively, the class may decide to help handicapped children, tutor students who need assistance, improve their own neighborhood or school environment, or choose a lifestyle which would insure a better future for others. A holistic approach to future studies involves more than knowledge of futures concepts and forcasting methodologies. Future minding extends beyond the classroom and includes a commitment to improving the future by taking action in the present.

NOTES

[1]For a discussion of the use of forecasting methodologies in the classroom, see Kauffman, Draper L. Teaching the Future: A guide to Future Oriented Education. Palm Springs, California: ETC Publications, 1976.

[2]For readings and ideas which help students try on new perspectives, see Dunstan, Maryjane and Garlan, Patricia. Worlds in the Making: Probes for Students of the Future. Englewood Cliffs, New Jersey: Prentice-Hall, 1970.

[3]For a discussion and listing of futures-oriented simulations, see Franks, Betty Barclay. "Futures Section." The Guide to Simulation Games for education/training. eds. Peter Zuckerman and Robert Horn, 3d ed. Cranford, N.J.: Didactic Systems, 1977.

[4]Robert Heilbroner, An Inquiry Into the Human Prospect (New York: W. W. Norton & Company, Inc., 1974), pp. 140-141. For opposing views, see Bell, Daniel. The Coming of Post-Industrial Society: A Venture in Social Forecasting. New York: Basic Books, 1973.

[5]Herman Kahn with the Hudson Institute, World Economic Development 1979 and Beyond (New York: Morrow Quill Paperbacks, 1979), pp. 479-487.

[6]For activities which take a holistic approach to futures issues, see Howard, Mary Kay and Franks, Betty Barclay. The Biological Revolution: Examining Values Through the Futures Perspective. Washington, D. C.: National Education Association, 1976 and Franks, Betty Barclay and Howard, Mary Kay. People, Law, and the Futures Perspective. Washington, D. C.: National Education Association, 1979.

[7]Robert Theobald, "Planning with People," in Ewald, William R., ed. Environment and Change: The Next Fifty Years (Bloomington: Indiana University Press, 1971), pp. 182-185.

[8]Benjamin D. Singer, "The Future-Focused Role-Image," in Toffler, Alvin, ed. Learning for Tomorrow: The Role of the Future in Education (New York: Vintage Books, 1974), pp. 19-32.

[9]E. F. Schumacher, Small is Beautiful: Economics as if People Mattered (New York: Harper & Row, Publishers, 1979), p. 101.

[10]For suggestions on integrating and disciplining mind, body, and spirit, see Leonard, George B. The Ultimate Athlete: Re-Visioning Sports, Physical Education, and the Body. New York: Viking Press, 1975.

FUTURES STUDY: A CONTENT AND PROCESS THAT WORKS

by

Geoffrey H. Fletcher

There are many reasons given for the purpose of education. Hilda Taba has outlined three classic views of the function of education: education as preserver and transmitter of the cultural heritage; education as an instrument for transforming culture; and education for individual development.[1] There are other delineations in the literature, some conflicting and some overlapping, yet there is one element common to every stated purpose of education--the future. Humankind has been interested in the future long before formal education. People have tried to foretell the future vy reading the entrails of animals, consulting the stars, and other means. Everyone forecasts what might happin in the short term future--"Will I catch the bus; will it rain tomorrow?" Edward cornish states that "Forecasting the future is fundamental to human beings."[2] This urge to forecast and think about the future has been felt for thousands of years, but there is something special about this present time in history that is making the future receive an even greater amount of attention--change.

Don Fabus contends that change has always been a part of the human condition. But, he continues, "What is different now is the pace of change, and the prospect that it will come faster and faster, affecting every part of life, including personal values, morality, and religion."[3] Kenneth Boulding claims, "The date that divides human history into two equal parts is well within living memory,"[4] and John Platt has stated, "We may date the start of another Age of Humankind with the year 1945--World Year 0."[5]

The rapidity of change, the amount of change, and the qualitative character of change since the World Year 0 have had numerous consequences. This change is putting stress on individuals, society, values, and institutions. It is creating "future shock." Social institutions have been unable to change at the rate that technology has. This growing gap between social institutions and other aspects of society could result in a large scale societal transformation of the order of the shift from the Age of Agriculture to the Age of Industry.

Today's students face a future that is different from any previous generation yet the curriculum in most schools is similar to what it has been for the past quarter century. Ron Laconte has noted that, "Schools try to prepare students to live in a time that does not yet exist by concentrating their studies on a time that has cased to exist."[6] With the world changing as rapidly as futurists indicate, curriculum also should change to keep pace with, or even to anticipate, the changing world. We should develop what Laconte calls a 'Janus-like vision' for, "Commitment to the future without understanding of the past, is purpose without knowledge. Understanding of the past without commitment to the future without understanding of the past, is purpose without knowledge. Understanding of the past without commitment to the future, is knowledge without purpose."[7] One way

to develop this 'Janus-like vision' is to incorporate futures study into the curriculum.

Futures study is more than a block of knowledge or a content to be learned. Instead, it is a perspective that is the combination of five key concepts: a consideration of alternatives, holism and attention to stakeholders, an extended time frame, the creation and consideration of images, and advocating a futures perspective.[8] Each concept bears some explanation.

Futurists believe that there is not one future, not THE future, but instead that a number of alternative futures are possible. One way of looking at alternatives is to consider possible, probable, and preferable futures. What are the possible futures for an individual or a particular aspect of society? Within these possible futures, what are the most probable futures based upon past data, impacting forces, and projected events? Within the possible and probable futures, which are the most preferable? Closely allied with the concept of alternatives and choice is that of purposeful action. Though action can occur in many ways, the important thing is to act, to intervene in sufficient time so that personal actions might be of some consequence. If one does not act in time, one loses choice.

A futures perspective causes people to look at consequences in a holistic way. Holism helps people to realize that everything is connected to everything else. Individuals, consequences, systems, events--all are interrelated. Recently this concept has been brought to the public's awareness through the ecology movement as more and more people are realizing the interrelationships among systems in nature. Futurists apply this concept to areas and systems other than nature. The concept of stakeholders means simply identifying and considering all the human beings who might have a stake or interest or share in an action, an event, or the consequences of an action or event. It is holism applied to human beings.

Futurists, more than any other people except historians, have an extended time frame. They are concerned with both the past and the future. More importantly, they attempt to consider long range implications and consequences, sometimes as far as 30,000 years in the future.[9]

The consideration and creation of images is crucial to both individuals and society. All decisions in the present are based upon some image of the future; thus images are the key to all coice-oriented behavior. At times images can help to shape what will happen because of self-fulfilling prophesies. Because of this, there is often an attempt to emphasize positive, yet reasonable, images.

The idea of advocacy is inherent throughout the futures perspective. It is simple that a person should act in accordance with a futures perspective and advoate that others do the same.

he growth of interest in futures study in the past two decades has been phenomental. From 1976 to 1978 alone, membership in the World Future Society grew from 21,100 to 41,000. There has been a similar growth of interest in futures education; i.e., helping students to develop a futures perspective. Surveys by Eldridge at

he college level,[10] Stock at the secondary level,[11] and Guy at the pre-high school level[12] indicate that more and more of educatuion is addressing the study of the future in some say.

Gifted education has enjoyed similar growth in the past decade. In commenting on this recent interest in gifted education, Scott Thomson notes,

> What appears most encouraging is that no immediate crisis, no compelling pressure exists for suddenly nourishing the gifted. Rather, the motives appear genuine and the pace more deliberate. Perhaps this considered approach will prove to be a more mature and lasting effort for the gifted student than prior attempts on their behalf have proved to be.[13]

The growth of funding for gifted education has also made great strides. This started with the 1970 mandate from Congress (P.S. 91-230, Section 806) which required the Commissioner of Education to examine the status of gifted education in the United States. The National/State Leadership Training Institute on the Gifted and Talented has been highly influential in the establishment of state plans which, in turn, have encouraged the development of local programs. In my home state of Ohio, funds for gifted programming have been increased from $300,000 per year to approximately $4 million per year.

Yet even with this encouraging growth of interest, there is still a need for more funds and more application of what we know about gifted in the classrooms. For example, Roger Taylor has cited a recent study in Ohio that showed more handicapped students graduated from high school than gifted students, and that 19% of all dropouts in Ohio were highly gifted.[14] These statistics are shocking, but they do point out the need for appropriate education for gifted students.

There are many ways of serving gifted students in the schools, including early admission, acceleration, and enrichment classes. However, no matter what the orgnizational structure of the program for the gifted, Joseph Renzulli believes,

> ...experiences comprising the curriculum for gifted and talented should be recognizably different from the general educational program that is geared toward the ability of average learners. These experiences should be purposefully designed to evoke and develop superior behavioral potentialities.[15]

An enrichment class seems to be the organizational structure with the greatest potential to be 'recognizably different.' Paul Witty quotes Schwartz as saying:

> The real purpose of the special class seems to lie in the assignment of tasks which challenge the child's interest and capacity, the enrichment of the curriculum to include a wide variety of experiences which are not possible in a regular class, the opportunity to think and to discuss with other children of equal ability the problems of life within their grasp, the development of initiative and independence of thought, and last, but not least, the relization of responsibility to the community, looking toward the use of their powers for the benefit of mankind.[16]

In searching the literature, I have found that there are three necessary elementars that are common to a successful enrichment program for gifted students. (This is not to say that other elements cannot be included: to the contrary, these three element could be considered minimum standards.) These characteristics obviously are interrelated, but each element merits a brief examination along with how futures study can help fulfill each requirement.

-An Emphasis on the Higher levels of Bloom's Taxonomy.

Creativity and divergent thinking have been shown to be an important aspect of giftedness, yet, as Passow and Tannenbaum note, "...despite the plethora of research on creative aptitudes, probably 95% or more of instructional time is still devoted to convergent thinking activities on the part of students and teachers..."[17] Gifted students need the opportunity and the challenge to analyze, snythesize, and evaluate. Futures study not only encourages these processes, but it also often demands it. Students are called upon to analyze and synthesize possible futures into probable futures and then to evaluate which of these futures are preferable.

-An Interdisciplinary, Holistic Approach to Subject Matter.

Specialization of knowledge has increased in the past century due to, among other factors, the knowledge explosion. This striation of learning leads students to believe that all of learning--and thus, by implication, all of life--is a collection of independent situations. (How many times do students say, "This is English class: why are we talking about science?") Hilda Taba suggests,

> The problem, then, is that of developing ways of helping individuals in this process of creating a unity of knowledge. This interpretation of integration throws the emphasis from integrating subjects to locating the integrative threads.[18]

Futures study is, by its very nature, interdisciplinary, and it can serve as one of the integrative threads that Taba calls for. For example, in a unit examining population growth, students could be called upon to graph trends in population and anlyze the forcing factors in various cultures that have and will impact upon the graphed trent. They caould then examine various methods in medicine for birth and death control. Finally, they could write population policy for various sections of the world. This is a typical approach to a topic in futures study, and it obviously integrates many disciplines as well as emphasizing the higher levels of Bloom's taxonomy.

-An Emphasis on an Action/Process Orientation.

This element underlies the previous two. Joseph Renzulli's Enrighment Triad Model[19] suggests that gifted students should have three types of learning experiences. Type I experiences consist of an exploration of subject matter. This exploration may take the form of readings, films,

filmstrips, speakers, or any other way in which information may be gathered by the student actively.

Type II experiences are more open-ended, process oriented, activities. These experiences involve the development of attitudes, thinking skills, and other processes. Activities characteristic of this type of experience include brainstorming, simulation/gaming, and role-playing. Also included in this type of experience is "Valuing." Students need to consider not only "whether" of "if," but also "should."

Type III experiences involve study in student-identified interest areas and result in specific products. The emphasis here is not so much learning about, but more learning as. For example, in addition to learning about city planning, students should plan a city. Futurists agree that these Type III experiences are essential. Benjamin Singer quoted then-Secretary of HEW Robert Finch as saying,

> All too often we are stuffing the heads of the young with the products of earlier innovation, rather than teaching them how to innovate. We treat their minds as storehouses to be filled rather than as instruments to be used.[20]

Ernest Dichter said, "the key to teaching futures ideas to young people lies in creativity...approaching problems in a completely different fashion and asking, 'Why not?'"[21] Like the first necessary element of a successful enrichment class, emphasis should be on the Type II and Type III experiences because these provide the greatest opportunity for analysis, synthesis, and evaluation. Futures study itself is more of a process than a study of facts, for there are no facts about the future. While background information is important, even more important is how that information is utilized.

It is clear that futures study fits extremely well with what gifted students need in an enrichment program. However, as I have tried to show, futures study is more than a content and/or a process; it is also a perspective. So while futures study seems to fit the curricular demands for the gifted, it also is important for gifted students as a perspective. Futures study attempts to develop alternative images of the future so that people may act in the present to bring about the most preferable futures. The inclusion of "preferable" makes clear that futures study is value-laden. In order to make effective choices about the future, one needs a foundation of values consistent with a futures perspective. Individuals may consider alternative futures for themselves, for society, or for any aspect of society, but whatever size future is being focused upon, futurists try to consider stakeholders and the interrelationships among systems athat may be affected. In this shrinking world of today, where the complexity of relationships is constantly growing, more and more people, especially gifted people, needa futures perspective. Passow and Tannenbaum note,

> One key to a new perspective on the educational needs of the gifted may be in attending to what Barry Commoner calls the 'humane consequences' of knowledge. Research has shown that gifted children possess an exceptional measure of social concern which has been ignored in the value-

free curricula to which they have been exposed.[22]

Harold C. Lyon, Director of Education for Gifted and Talented at the federal level, has noted that

> ...crises abound today - energy, ecologic, economic, and political - but it is not sufficient just to respond to competing crises as we did for the gifted during the launching of Sputnik. Rather, we must consider the development of human talent for the benefit of all mankind so that we may live sensibly on this rapidly shrinking globe.[23]

While the gifted may not always be the elected representatives in government, they most probably will be the discoverers, the innovators, and the advisors to the leaders. These people must have the ability to create alternative futures, consider all stakeholders, recognize relationships, and consider time frames longer than two, four, or six years. Not only does futures study fit gifted students' needs in schooling, but also futures study is necessary for gifted students'--and the world's--future.

All this is nice on paper, but the changing or instilling of an attitude as complex as a futures perspective looks to be rather difficult for formal schooling to accomplish. This is true, but there is evidence that it can be done. In the 1978-79 school year, Gary Wooddell, Ted Dixon, and myself conducted a study in which we tried to develop a futures perspective, futuring competencies, and self-actualization in two groups of ninth grade students at Milford Junion High School.[24] Each group participated for one period a day in a semester-long enrichment class in futures study. The result of both the quantitative and qualitative evaluation indicated that we were successful in significantly enhancing the students' futures perspectives, futuring competencies, and self-actualization. This is especially encouraging considering the relatively limited amount of time we had contact with the students. These attitudes can be developed within formal schooling.

Given the complexity and the amount of change in the world today, futures study or any other systematic attempt to prepare young people, especially young gifted people, to anticipate and control change and complexity, is necessary. As Scott Thomson points out,

> ...supporting the development of the gifted student pays social dividends. Their later contributions may well spell the difference between meeting tough challenges or falling before them. As Toynbee points out, civilizations are founded and grow as a result of the creative activity of a small group of persons responding to a challenge offered the larger society. And sufficient challenges lie ahead so as to be sobering, indeed.[25]

NOTES

1. Hilda Taba, Curriculum Development: Theory and Practice (New York: Harcourt, Brace, and World, 1962).

2. Edward Cornish, The Study of the Future (Washington, D. C.: World Future Society, 1977), p. 52.

3. Don Fabun, The Dynamics of Change (Englewood Cliffs, New Jersey: Prentice-Hall, 1967), p. 3.

4. Kenneth E. Boulding, The Meaning of the Twentieth Century (New York: Harper Colophon Books, 1964), p. 11.

5. John Platt, "A Systems Point of View." Speech delivered to the Minnesota Futurists, Minneapolis, Minnesota, June, 1974.

6. Ronald T. Laconte, Teaching Tomorrow Today (New York: Bantam Books, 1975), p. 5.

7. Laconte, p. 4.

8. For a more complete explanation of these concepts and their derivation, see Geoffrey H. Fletcher, "Key Concepts in the Futures Perspective." The World Future Society Bulletin, January-February, 1979, pp. 25-32.

9. Elise Boulding, "The Dynamics of Imaging Futures." The World Future Society Bulletin, September-October, 1978, pp. 1-8.

10. H. Wentworth Eldridge, "Status Report: Sample Syllabi and Directory of Futures Studies." In Alvin Toffler (Ed.), Learning for Tomorrow (New York: Vintage Books, 1974), pp. 345-399.

11. Richard Stock, A Survey of Futures Studies Instruction in U. S. Secondary Schools. Unpublished doctoral dissertation, Columbia University, 1975.

12. Cynthia Brainerd Guy, A Survey of Pre-High School Future Studies Programs. Unpublished doctoral dissertation, University of Massachusetts, 1978.

13. Scott D. Thomson, "Awakening to the Needs of the Gifted." NASSP Bulletin, March, 1976, p. 1.

14. Roger Taylor, from a speech delivered at Workshop for Gifted Programs, WCET-TV, Cincinnati, Ohio, August, 1979.

15. Joseph S. Renzulli, "Identifying Key Features in Programs for the Gifted." In Walter B. Barbe and Joseph S. Renzulli (Eds.), Psychology and Education of the Gifted (New York: Irvington Publishers, 1975), p. 327.

16. Paul A. Witty, "The Education of the Gifted and Creative in the U.S.A." In Walter B. Barbe and Joseph S. Renzulli (Eds.) Psychology and Education of the Gifted (New York: Irvington Publishers, 1975),p. 40.

17. A. Harry Passow and Abraham J. Tannenbaum, "Some Perspectives for the Mid-70's." NASSP Bulletin, March, 1976, p. 9.

18. Taba, p. 299.

19. Joseph S. Renzulli, The Enrichment Triad Model (Weatherford, Connecticut: Creative Learning Press, 1977).

20. Benjamin D. Singer, "The Future-Focused Role-Image." In Alvin Toffler (Ed.), Learning for Tomorrow (New York: Vintage Books, 1974), p. 20.

21. Ernest Dichter, quoted in Jerome Agel, Is Today Tomorrow? (New York: Ballentine Books, 1972), p. 74.

22. Passow and Tannenbaum, p. 10.

23. Harold C. Lyon, Jr., "What are the Priorities?" NASSP Bulletin March, 1976, p. 13.

24. Gary D. Wooddell, Thornton E. Dixon, and Geoffrey H. Fletcher, Developing and Evaluating a Futures Study Curriculum for Ninth Grade Students. Unpublished doctoral dissertation, University of Cincinnati, 1979.

25. Thomson, p. 1.

Brebulos-5: A Mission into the Future

by

Ann H. Stoddard
University of North Florida

and

Diane Mellow
Duvall County Schools

The imagination of today's children centers primarily on outer space adventure and life in the future. Movie-makers, toy manufacturers, authors, and advertisers are using this interest to sell their products. Teachers who want to capture attention, motivate and foster creativity in their students also need to follow suit by tapping this area of fascination.

A group of third grade gifted students in Jacksonville, Florida developed a special project centered around space travel and the future. Their teacher, noting the children's preoccupation with these topics in their drawings, creative writings and conversations, designed a program to capitalize on this interest. Special emphasis was placed on developing group interaction and problem-solving skills and meeting special needs of the children. A group project which tied in present world situations and reality with an imaginative adventure into space was suggested. The stage was set for Brebulos-5, a mission into the future.

The purpose of this article is to describe how students' current interests can be applied to establish a successful project for the gifted. Five areas of the curriculum for the gifted will be addressed: research methods, critical appreciation, scientific approach, creative expression, and social process. Following a concise description of the project, implications for creativity and for curriculum development for the gifted will be made.

The Log.

The first objective met was research methods. The children wrote their versions of why man needed to leave earth to search for a new planet - the beginning of a fresh start where past mistakes were corrected. Examples of the crisis on earth which forced the five explorers to travel into space were studied. Energy shortage, pollution of water, land, and air, starvation, extinction, and destruction from wars were cited. The children investigated each topic and took stock of various types of topography on the new planet.

The children wanted to make the story personal and wanted to use a format which lent itself to a presentation to other classmates. To do this, they pretended that each of them was part of a five member explorer team sent by the "United World Organization" to locate a new planet. They gave themselves special abilities needed to begin a new world. The five special areas of proficiencies were: science, for construction of new cities; transportation and defense, for mobility and protection;

energy, for operation; medicine, for physical and nutrutional survival; and, counseling and psychology, for social interaction. By combining the first letters of each child's name, Bryan, Erik, Brooke, Reid, and Shonnon, the new world was dubbed Brebulos-5. Autobiographical data were developed by each crew member which included educational data and their accomplishments which qualified them for the journey. From these data, job descriptions for colonizing the new planet were determined.

Excitement was manifested in the story as the children recorded parts of the dialogue throughout the journey. The countdown began and a successful lift-off was made. Heat deflectors had to be used to avoid the ship's burning as it nearly collieded with the sun. The vogage was long and rough, but finally the space travelers spotted a small planet that seemed perfect. After checking the atmosphere, they landed, finding many different land formations but no sign of animal life. Thus, objectives in the area of creative expression were realized through the children's imaginative description of the journey and special mission.

Additional creative writing dealt with how the team fulfilled their duties on Brebulos-5. An energy center was developed and domes for defense, living and working were designed. A transportation pod system was mapped, and an agricultural center was created. Finally, the explorers ended their log with a message to the peoples of the United World Organization explaining how their mission aided them to understand better the meaning and value of life. Social processes similarly played a major role in accomplishing this task. By working together for the future of mankind andpreparing for the arrival of the earth people, the explorers had to work closely together and rely upon each other's expertise. The log reported that they held great hope for the future.

The collective writings paved the way for the accomplishement of the creative expression objective. To gain an overall view, a large mural depicting the entire mission was constructed. Each child was responsible for a different section, beginning with the war and destruction on earth and the flight from earth and ending with the discovery of Brebulos-5. This mural served as a visual outline of what was to follow in the area of critical appreciation, skills in patterning and sequencing, and analyzing information. Later, it was used as a backdrop for the television taping.

Construction of a metropolis began. A two dimensional blueprint was drawn up showing the landing site on Brebulos-5 and the architectural structures. Materials used to construct the model were plyboard, celluclay, shoe, boxes, spools, paper tubes, plastic terrarium domes, terracotte clay, tempura paint, styrofoam, and aluminum discromate - a must to make the volcano on the planet erupt.

As the students worked in groups, areas of social processes were developed. They found it essential to share materials, especially when they began to select different types of topography to mold and paint, and to lend a helping hand during the activities that followed. Constructive suggestions were made by the students and emotional involvement was high during the construction of the metropolis.

As the project developed, student attention was drawn to devising an appropriate

method to present their project to their classmates. Invitations which were sent to the other third grade classes included a specific vocabulary list and questions to help other students familiarize themselves with the new words and concepts. A posttest was also developed for the viewers to determine how well they listened and what they learned from the presentation.

Take-One

Just as important as the development of the creative idea was the presentation of the project. There was a great need for recognition of the students' efforts and for sharing the knowledge, especially to their peers. Because there gifted children had so much to offer, they needed the opportunity not only to explore and create but to present their final product to others. The next step of Brebulos-5 project provided an avenue for this need.

Each of the third grade classes was brought in and seated around the five explorers. During the discussion, each child shared his portion of the story of the special mission. Because dramatization was used as one mean of meeting the creative expression objectives, the flight and model were thoroughly explained. As a final touch, the volcano was erupted to prove that the domes were stable and could withstand environmental phenomena.

The educational television channel invited the class to be videotaped in the downtown studio. The project was aired as part of the Junior Reporter's Program. It was also shown regularly on the instructional channel as a special project of the gifted program which was viewed by all students in the school system.

Mission Accomplished

Brebulos-5 met the five objectives set forth at the beginning of the project. By working as a group, the students became aware of not only their strengths and limitations but also the strengths and limitations of others. They accepted each other's manner of operation and developed means of cooperation for a common goal. They had to compromise and understand that each member of the team contributed to the group effort.

Throughout the project, the students were constantly making judgments, forming opinions and critically evaluating their efforts. Not only did they analyze and synthesize and evaluate information during the project, but they encouraged their peers to engage in the same processes as they shared the learning experience. They realized that one way to learn was by being directly involved with a problem. Observing, classifying, following guidelines, measuring and decision-making were among the other skills the children developed as the mission to Brebulos-5 evolved. Applying rules and transferring knowledge to new situations further expedited internalization of knowledge and information-processing skills.

Brebulos-5 was made more realistic through careful study and research. What better way to develop these skills than with a project that deals with the future. Each child found information on topics that were of great interest to them. Multiple sources in the library were used in addition to scientific magazines, architectural books, and atlases which showed topographical forms.

Individual creativity and originality were encouraged through drawings, three dimensional construction in clay, writing, and dramatic presentation. The children's fantasy world and adventuresome spirits were put on stage. As they delved deeper into the mission, they became aware of their power and freedom of running the show and that they were leading the way for others to follow. The grand finale, the taping of the presentation at the television studio, proved to be a thrilling experience for all.

Debriefing

One procedure used to evaluate the project was to ask the students for feedback. After discussing their "Mission into the Future," several key points were noted by each child. First of all, they said that they were eager to get to class. They planned at home and brought suggestions, materials and drawings they made on their own to class each week. They were highly motivated during their regular class settings, so much so that other classes became eager to hear about their special project. Another important item the class listed was the fun and excitement they felt in sharing the new world presentation.

Besides the cognitive abilities the children gained as they progressed with the project, they felt as though they learned affectively, as well. Their interaction skills improved as they grew more open. They expressed a closeness to each other having worked together toward a common goal. They sensed a need or deficiency. For example, Reid, the artist in the group, offered to help draw a super nova on Eric's part of the mural because Eric lacked the necessary artistic skills.

Implications for Future Missions

Evidence from Brebulos-5 warrants on unqualified endorsement of encouraging creative thinking the gifted classroom. Creativity was reflected in the things they produced - the landing site with its varied topography, the job descriptions of needed specialities, and the design of the energy, transportation and agricultural systems. The architectural design of the Shopping Ball, a mall shaped like a huge sphere, was unusual and clever. New ideas were constantly being tested, refined or dismissed during the project. Other portions of the project also illustrated creativity as the children treated different situations, thoughts and worked independently, dealt with fantasy, took risks and developed hypotheses.

In addition, Brebulos-5 demonstrates implications for the gifted curriculum in at least two other ways: first, the way in which instruction and resource materials can best present information to children to assist learning and development of thinking skills; and second, the kinds of activities which capitalize on current interests of children and ways they can best be utilized to increase their learning power.

Working in the real world has many challenges, one of the greatest being the ability of working with others toward a common goal. The children in this gifted classroom showed insight into leadership functions and commitment to group goals. They were able to resolve successfully conflicts of interest and to communicate

effectively. More precisely, an overall explanation for the children's attitude being high and openminded was that the teacher took advantage of a novel acquisitiveness and channeled it into a unique learning experience.

Future Studies for the Gifted and Talented

by

Robert M. Fitch
The University of Iowa

Introduction

Future Studies is an emerging curriculum area which is not well understood by educators generally and the public specifically. Education for the talented and gifted is a re-emerging area which is not well understood by educators generally and the public specifically. The two areas were recently brought together in newspaper articles which reported the efforts of certain Nobel Prize laureates to engage in genetic manipulation to produce intellectually superior individuals who would, presumably, apply their intelligence to the improvement and guiding of future society.

Such stories raise the anxiety level of people because they reinforce stereotyped thinking about things which are generally feared--the future and highly intelligent people. Most writing about the future which appears in the newspapers and mass circulation magazines tends to focus upon the perilous prospects of the future just as such writing about the talented and gifted tends to reinforce the stereotype that giftedness is wholly a function of genetic inheritance.

The issue of egalitarianism is another common problem. Just as education for the gifted and talented is frequently viewed as elitist, so too are future studies. To some extent, the article which follows will tend to perpetuate such stereotypes because, in fact, future studies are especially suited to the gifted and talented--especially the intellectually gifted.

One of the main issues confronting programs for the gifted and talented is that of providing an integrating framework for appropriate content and methodology. It is the thesis of this article that future studies provides such a framework. Since this issue of Opening Education for Children and Youth is devoted to "Educating Our Gifted and Talented Children" the balance of the article will proceed to explicate the characteristics of future studies so that educators who may wish to use them will have the broad outlines of what is involved in the area.

Characteristics of Future Studies[1]

Future studies encompasses a range of subject matter from many disciplines and sub-disciplines: history, economics, government, geography, sociology, psychology, biology, ecology, technology, as well as literature and philosophy. The result of this convergence of subject areas is an essentially interdisciplinary approach wherein issues are studies in an integrated manner.

This integration permits the study of the world holistically, without regard for the boundaries of the disciplines that often interfere with the complete understanding of issues.

Future studies represents an attempt to persuade students to think more systematically about the future. The development of such a perspective in young people will help to stimulate future-oriented motivation and achievement.

Since it deals largely with the hypothetical and the problematical, future studies is heavily weighted toward the use of inquiry strategies and problem-solving techniques. In large measures, these approaches are very familiar to educators. A major distinction in future studies, however, is the addition of a number of methods with considerable potential for generating and processing data in rather unique ways. Specifically there are a number of forecasting techniques which are featured in many futures courses. Foremost among these are Delphi polling, trend extrapolation, futures wheels, relevance trees, cross-impact matrices, dynamic modeling, and scenarios. Not only do these techniques facilitate the processing of data in new and potentially exciting ways, but they teach students a number of specific skills which can be later applied to other situations.

Another aspect of future studies is its open-endedness. Some teachers may still attempt to impose facts and predetermined conclusions upon students, but the possibility of this occurring would seem to be significantly reduced in future studies. The teacher is placed in the position of not having the certainty of knowledge which characterizes the traditional teacher-student authority relationship. The teacher becomes a facilitator in the development of logical thinking skills, the correct applications of data, and problem-solving abilities, as well as a stimulus for hypothesis-making, imagination, creativity, and informed speculation.

Although concerned to some extent with forecasting the future, a major intended outcome of futures courses is the development of insight and perspective into the major issues of today, the outcomes of which will shape the future. There is no evidence to suggest that futures courses are not firmly anchored in the realities of the present. The message usually comes through loud and clear. *What we do today will determine the shape of tomorrow: therefore we must carefully weigh the possible implications of our present behaviors and actions.*

Many futures courses also contain a strong value component, either explicitly or implicitly. Our attempts to shape the future are grounded in our value systems. Changing conditions and perceptions during the present era may be adding up to some fairly profound changes in our most cherished values. Consider the following equation: hard work + economic growth = progress = affluence = the good life. Clearly, there are some basic challenges arising to the assumptions underlying these value indicators. Based on the writings of some futurists, the following equation may emerge in the years ahead as a replacement to the one above: simple living + appropriate technologies = selective economic growth = an equilibrium society = the good life.

If nothing else, future studies represents an opportunity to re-examine the possible implications of our continued adherence to certain values versus the possible implications of a shift to alternative values, particularly those which may be more likely to ensure our continued survival in the years ahead.

Another major characteristic of future studies is a high degree of optimism. There appears to be an implicit consensus supporting the belief that societies will eventually solve the major dilemmas with which they are confronted. The doomsday thinking which characterizes some futurist writings does not appear to be a feature in any of the futures courses we have seen. Instead, a faith in human efforts to find viable solutions to world problems--particularly technological solutions--appears to be the dominant perspective. Some of the literature, however, has begun to stress a skepticism toward such technological solutions and to suggest more visionary alternatives.

Many futures courses attempt to help students understand the distinctions among the concepts of possible, probable, and preferable futures. For example, the possible future may be studied by reading science fiction, through the use of brainstorming and other forms of speculative thinking, and through the use of student-written scenarios. The probable future may be examined by studying trends and other forms of exploratory projections. The preferable future may be studied through cross-impact matrices, impact analyses, attitude surveys, value analyses, and other subjective methods.

A major feature in the literature about future studies is the idea of creating, through such courses, individuals who will be more likely to take initiatives in managing the future, rather than allowing events to take them by surprise. This has been referred to as the development of a "pro-active" orientation as opposed to the re-active orientation which most of us possess. This pro-active orientation is characterized primarily by a high degree of self-motivated behavior which is dominated by the realization that desirable futures will not evolve automatically: we must work together to make them happen.

Finally future studies is not dominated by any particular topic or issue, but frequently includes instruction related to the following themes: environmental problems, energy alternatives, global issue (e.g., the search for world order, third world development, population and food supply), the promises and hazards of technology, the effects of change and others.

Summary

From the foregoing it should be clear that future studies is an open system of knowledge and skills which is global in its academic base. Just as history involves the study of the human condition in all of its social, economic, and political manifestations, future studies extends that framework into time which is yet to occur. Future studies serves to integrate by focusing upon the relationships that exist between all fields of knowledge.

NOTES

1
These characteristics are adapted from Robert M. Fitch and Cordell Svengalis, Futures Unlimited: Teaching About Worlds to Come. Bulletin 59, National Council for the Social Studies, Washington, D.C., 1979.

Utilizing Community Resources for the Gifted and Talented Student

by

Eugene Campanale
St. Mary's College

It is not the intent of this article to attempt to identify the gifted or talented student. Much literature can be found which has been devoted to the subject. To complicate the identification problem today is the desegregation issue. Teachers will have to be aware of signs of giftedness in all students, more importantly minority students.[1]

Most educators know that programs for the gifted have been neglected, or that gifted students are difficult to discern in a normal classroom. We have now learned that federal monies for the gifted has increased over the past few years,[2] or that without special help these children become bored and frustrated and often drop out of school[3] and that gifted students need special kinds of attention from teachers, particularly during adolescence.[4]

In the process of researching materials for this article this writer decided to delineate the topic to the use of community resources in working with this type of student - if not for all students. The reasoning for this was simple. There is the misconception that gifted students "can make it on their own," "or that they will learn in spite of the teachers." While these have proven to be myths for a variety of reasons, the assumption here is that the gifted or talented student has not been properly identified and therefore teachers are not sure what to do for them. Hopefully with the emergence of community resources, the gifted will surface.

Another reason for the topic is that gifted students are most generally self-sufficient, use their own initiative and are curious about what's going on around them.[5] Unfortunately, this statement can be made about many "normal" students. Who is to say, therefore, who these gifted and talented students are and what programs are best suited for them?

Many school systems are trying to meet the needs of gifted students through some form of acceleration or enrichment. Some of their forms have been small group activities, use of multiple texts in the classroom, homogeneous grouping, honors classes, advanced placement, gifted students becoming part-time college students, etc. The objective here is to use the theme that enrichment automatically leads to acceleration.

If a teacher is confident and has a strong sense of security, she shouldn't be threatened by the talents of the gifted.[6] If we truly say that we strive for intrinsic motivation within students, then we must give them an opportunity for the freedom to follow their curiosity. Competence and social motives might then flourish.

The use of nonschool resources in a community can be used on behalf of the gifted and talented in two different ways. One is in skill-training groups and another is in school initiated projects.[7] Skill training groups are usually set up by community institutions independent of schools. Many of these institutions such as colleges, libraries, businesses, and even industries offer opportunities to talented children without any relation to the schools, though the schools often aid in the selection of children and encouraging them to take advantage of the opportunities. Excellent examples of this are science, art and math fairs. Presently, Saint Mary's College, Notre Dame, Indiana sponsors a Math Fair every Spring for high school girls. This fair is sponsored by the College with talented female math students being encouraged to participate by their teachers. There are similar programs such as this one which can be found in many communities.

School-initiated projects exist when schools attempt to exploit community resources for the sake of the gifted and talented student. Most commonly this is done through field trips and visits by children to places and people of interest in the community.

School-initiated programs lead to Saturday morning and evening classes in the library where good books are read and discussed. Students may opt for a visit to the museum to study art or to draw and paint. The schools can call on the local P.T.A. to help them locate talented men and women in the community who could provide leadership at Saturday morning classes on a voluntary basis. If necessary, this same group could raise money to employ talented individuals to teach those areas where students have indicated an interest. I would hope, however, that this would not be necessary.

Supporting summer camps or workshops for selected students would be another venture. This experience could be a new one or expansion of one already learned. It may be academic or for the encouragement of creative skill. While securing volunteers may not necessarily be the easiest thing to do, all it takes is an invitation and some encouragement to get these interested individuals before a group of young people. It's a two way proposition, individual students can leave classrooms to interview leading citizens in the community, but there are many men and women willing to bring a wealth of experience and ideas to a class.

It has been said many times that curriculum has been known as being the best approach in controlling discipline. The "right" curriculum in the school is especially necessary for the gifted students. The elementary schools do not encounter half the problems as the secondary schools because in the early grades, students are in their earliest years of learning and therefore everything seems to be of interest and challenging to them. With the ingredients of the basic curriculum and understanding teachers community resources may be helpful, but reinforcement is still imperative.[8]

Teachers can begin ultilizing community resources within their classrooms in the lower grades by initiating a lecture series utilizing parents. A father, mother or both can be invited in at designated times to talk about their respective profession. Not only does this enhance the image of the child

of that parent but anyone of the talks may stimulate interest in that occupation by other members of the class. This can begin in the fourth, fifth, or sixth grade or earlier depending upon the maturity and make-up of the class. This technique should become part of the "regular" curriculum. Simultaneously, the teacher solicits interest on the part of class members and begins to pursue contacts with various people in the community who would be interested in working with young students in their areas of endeavor.

All resources in the community should be investigated because every school and faculty has its limitations. There are limited resources in the classroom as well as in the libraries. Even though teachers have limited abilities regarding certain fields, they should be perceptive and sensitive to the needs of particular students.[9] Above all, because some classrooms are more structured than others, the use of community resources gives some students an opportunity to "spread their wings and show their wares."

Many teachers and schools in the past have not utilized the resources in their community enough or not at all. Benefits derived by utilizing the resources of the community aid not just the gifted but all students to develop their skills and interests outside the school. Further utilization of these resources alleviates pressure on the teachers by allowing students to use energy and abilities outside the limiting classroom experience. The classroom should not consist of the four walls found in a school building but should consist of the entire community. What an opportunity to aid the child from a minority culture to broaden and enhance his horizons. Of greater importance is the opportunity for the students to use the resources after school, Saturday morning and even during the summer. An additional benefit is cementing positive relationships between the school and community - a goal which school people are always seeking to accomplish.

Gertrude Hildreth[10] in her book titled Introduction to the Gifted devotes an interesting section to community programs for the gifted and talented. Many of the programs cited include students of not only superior mental ability, but also those with a great amount of curiosity and interest. While the section is not long, the author includes throughout the book community projects for the gifted, on all levels of achievements. They are possible in many different fields, from 4-H clubs on the farms to classes at the Julliard School of Music in New York City.

Nash, Borman and Colson[11] in an article for Exceptional Children stressed the idea of career education. The program is implemented in three different stages during the senior high school, with each phase covering an equal period of time. The first phase is called the Guidance Laboratory Experience. This is a general explanation of self interests and basic opportunities. There is some training in problem solving and decision making skills. The second phase is termed the Mentorship Laboratory Experience. At this time the student must make some sort of decision regarding his general field of interest. For two hours a day he is an aid with a professor at a local college. He also participates in bi-weekly seminars where he discusses what he has observed. The third phase is called the Working Internship Experience. Here the student will participate daily in an office of whatever field he chooses. The authors determine that one teacher can administer the program for 15-25 students. Exposure to highly successful individuals in the community is immeasurable.

The use of community resources can begin at an early stage of the gifted/talented child's formal education. In addition to the use of parents, a good starting point would be retirment homes where teachers can locate retired doctors, dentists, school teachers, professors, business executives, computer analysts, etc. These people would be most happy to work with young people and share with them their knowledge of their respective professions. One contact leads to another.

A positive side effect of this experience would be as Urie Bronfenbrenner[12] says - having a "curriculum for caring." He says that schools must break down the walls existing among themselves, the community and the parents to establish links. There are many communities which cater to the retired. These are the areas where school personnel can begin. Many retirees feel they have outlived their usefulness. Why can't schools take advantage of this resource - help these senior citizens feel useful again and simultaneously help the young. The majority of these people would be more than happy to share time after school, Saturdays, etc. with students who have indicated an interest in their field.

The number of resources in most communities is endless. These resources should be utilized by all levels - kindergarten through the college level. It takes teachers and administrators who are confident, not fearful of admitting they don't know it all and the ability to work directly with these people from the community. The lessons learned would be of value to all - the resource, the teacher, and above all, the gifted and talented students who would have an opportunity to move forward in the enrichment process.

Many communities compile a booklet containing names of resource people in the community who would serve as consultants to teachers and students interested in their hobbies or field of work. In many cases, new teachers receive a copy of the booklet and if the teacher is new to the community someone may be assigned to serve as a contact agent.[13]

Even though there are many schools and teachers utilizing community resources for the gifted and talented, it is strongly suggested that the task of uncovering and using these resources become an integral part of every school's curriculum - not just a hit and miss affair. The benefits derived from this experience would be an invaluable asset to the community as a whole, the talented as well as the normal student, the resource person, and the school and its teachers administrators. The overall beneficiary would be the society at large.

* *

A professor can never better distinguish himself in his work than by encouraging a clever pupil, for true discoverers are amont them, as comets among the stars.

Quoted in biography of Carl Linnaeus by
Benjamin Daydon Jones

FOOTNOTES

1
Torrance, Paul, "Dare We Hope Again," Gifted Child Quarterly, Fall, 1978, p. 292.

2
Mitchell, Bruce, "What's Happening to Gifted Education in the United States Today?" Phi Delta Kappan, April, 1980, p. 563.

3
Bentsen, Cheryl, "The Brightest Kids," New York Magazine, June 18, 1979, p. 36.

4
Hoback, John and Perry, Phyllis, "Common Sense About Educating the Gifted and Talented, Educational Leadership, January, 1980, p. 346.

5
Sisk, Dorothy, "The Gifted Have Special Needs," Early Years, February, 1980, p. 36.

6
May Lola, "Teaching the Gifted Child," Early Years, February, 1980, p. 46.

7
Havighurst, Robert, Stivers, Eugene and DeHaan, Robert, A Survey of the Education of Gifted Children, The University of Chicago Press, Supplementary Educational Monographs, #83, November, 1955, pp. 18-19.

8
Torrance, Paul, "The Gifted Child's Major Problem," Gifted Child Quarterly, Autumn, 1971, pp. 147-155.

9
May, Lola, op. cit.

10
Hildreth, Gertrude, Introduction to the Gifted, New York, Harper, 1952.

11
Nash, William, Borman, Christopher, and Colson, Sharon, "Career Education for the Gifted and Talented Students: A Senior High School Model," Exceptional Children, February, 1980, p. 404.

12
Bronfenbrenner, Urie, "Our Schools Need a Curriculum for Caring," Instructor, February, 1979, pp. 34-36.

13
Thomas, George and Crescimbeni, Joseph, Guilding the Gifted Child, New York, Random House, 1966, pp. 162-163.

Simulation/Gaming and the Gifted and Talented

by

Michael J. Rockler
Rutgers University

My young daugher returns from school with "homework." Her second grade teacher, a favorite in her short career as a scholar, temporarily has been replaced by a substitute. To keep the children busy the instructor assigns them a page of arithmetic problems consisting of five columns with five exercises in each one--numbered across the page in the order for completion. My daughter finds the task easy and boring; she creates a pattern: one in column one, two in row three, etc. In this way, she eases the ennui and invents a game.

John Dewey contributed much to modern education, perhaps his most significant gift exists in the idea of a false distinction between work and play--at least with regard to education. Work becomes play when it takes on purpose; otherwise it is onerous toil.

The teaching strategy of simulation/gaming gives meaning to school work, converting it to joyful play. Children participate in games--as do adults--learning adjustment to the demands of life (for living can also be viewed as a game). Instructional gaming facilitates creative behavior; it adds to the enrichment of those special children classified as gifted and talented. This article examines ways that divergent thinking can be increased by the use of simulation/gaming.

The use of instructional gaming continues to grow. It began as a cost efficient method for teaching military strategy (to save both lives and money); historical roots of war games can be found in chess. This application reached full fruition with the advent of computer science. Following World War II, the process was used in business decision making and in the training of administrators. The federally funded curriculum projects of the 1960's employed the technique widely for instruction, helping to promote its current booming growth. At least two journals focus exclusively on gaming (Simages and Simulation & Games) while professional organizations of gamers exist in the United States, Great Britain, and Canada.

Support for games can be found in most cultures. O.K. Moore and Alan R. Anderson (Sociological Quarterly, October, 1960) argue that societies contain autotelic folk models for purposes of socialization. These paradigms teach behaviors related to the planning of strategy, the acceptance of chance, the solving of puzzles, and the appreciation of aesthetic activity. All these categories relate to games (e.g. chess is a game of strategy while poker is one of chance). People participate in these activities to learn survival skills. They simulate real world events in safe contexts where mistakes have only

minimal cost. All societies have gaming components within them; this helps explain the widespread popularity of commercial games. Partly because of this, students readily accept instructional gaming.

In addition to providing for socialization, simulation/gaming achieves other objectives as well, existing in formats that accomplish the usual ends of teaching: they instruct in content, concepts, skills, and attitudes. Considerable research indicates that a change in attitude often occurs from involvement in simulation/gaming.

Games help to explain human behavior since they usually model life. Persons pursue objectives, formulate strategies, and win or lose. In his book, Game Theory (Basic Books, 1973), Morton Davis describes many kinds of games including those where one player wins at the expense of another--called a zero sum game. Cooperative contests also exist in which two or more participants from productive coalitions. For all of these, Davis draws examples from the reality of human behavior, finding samples of gaming activity in war, business, and education. Davis makes clear the connection between games and life.

Simulation/games also improve mental health. Good ones are sociodramas--educational versions of psychodrama, a procedure employing improvisational drama to provide therapy. (Developed by J. L. Moreno, the approach has won many followers among therapists). A sociodrama focuses on a group problem (rather than on a personal one), potentially leading to increased emotional growth. The relationship between games and mental health exists also for therapists oriented to Transactional Analysis. Eric Berne's Games People Play (Grove Press, 1964) describes the role of games--positive and negative--in human behavior.

These uses of gaming--(1) to provide socialization, (2) to teach content, concepts, skills, and attitudes, (3) to examine human behavior, and (4) to improve mental health--are powerful reasons for adding the strategy to the teacher's repertoire. These outcomes provide a rationale also for their use with the gifted and talented. In addition, simulation/gaming is synergistic with creative behavior. Learning to be an effective games player often leads to increased divergent thinking.

The theoretical basis of creativity contains many varied components: (1) For Freud, creativity derives from unresolved conflict; freely rising fantasies carried over to adult life also can lead to innovative behavior. (2) For Alex Osborn (author of Applied Imagination--Scribners, 1953--a classic work) creativity increases by "brainstorming"--a process for rapidly generating alternative solutions to problems. (3) In his model of intellect, J. P. Guilford indicates that creativity occurs when the mental operation he calls divergent thinking leads to a transformation. (4) W. J. J. Gordon provides still another view of the innovative process. Called, "synectics"--the bringing together of unlike things--Gordon describes creativity as a technique for making the familiar strange. (5) For Arthur Koestler, innovation derives from the bisociation of unrelated matrices of experience. When integrated, these matrices lead to science, but when juxtaposed, art results. Humor comes from their collision (i.e. when two sets of irreconcilable experiences come into conflict; Jack Benny's attempt to decide whether to give a robber his money or his life is an example). (6) Rollo May

sees creativity as an attempt to defeat death--a wish to leave something behind.

This list could be extended; most works add perspective while few contradictory materials have been produced--a significant aspect of the theory building process.

Most scholars (and many creative persons reflect upon their own experience) suggest metaphor as central to the innovative process. For it to occur, one must step back and view the problem from a distance. Inventing a metaphor often achieves this. (In Fact, Gordon's process of synectics relies heavily on it. Lately he has applied analogy to the solving of emotional problems. For example, a person who cannot examine his or her situation directly may be able to understand it metaphorically. Freud's use of dreams in therapy may have been based on the same principle).

Recognizing the importance of metaphor in the creative process helps to explain its synergistic relationship with gaming; a simulation models reality. Instead of a real world problem, the player experiences an analogy. The activity serves as a representation of the issue and a metaphorical solution can emerge.

Other qualities of simulation/gaming are synergistic with creativity as well. E. Paul Torrance applied creativity theory to education, producing a multitude of books for teachers. For Torrance, creative behavior increases: (1) when teachers inhibit their censorship roles, (2) by the deep involvement of a learner in a problem, (3) when a non-punitive atmosphere exists, (4) when productive and unproductive children work together, (5) when the teacher tolerates complexity and disorder, (6) when students confront incompleteness, (7) by an accepting, respecting attitude, and (8) by the encouragement of curiosity. Any good simulation/game, by its very nature, provides for all of these behaviors.

Torrance maintains that creative thinking includes fluency, flexibility, sensitivity to problems, originality, elaboration and redefination. In many games, communication increases as peers talk to each other. In order to be an effective game player, one must be flexible and seek original solutions; this encourages elaboration (going beyond the data given) and the redefinition of situations. Furthermore, the process of gaming increases sensitivity to problems.

A need exists to increase these behaviors among all persons; only by expanding their creative problem solving capacity can persons adjust to the increasing rate of change labeled, "future shock," by Alvin Toffler. Greater ability to confront difficulties seems even more important for the gifted and talented. All persons must learn to face and solve complex issues including the energy shortage, the inflation crisis, and the constant threat of nuclear destruction. Developing creative behavior among bright children adds strength to persons who are capable of generating alternative solutions. Since this paper focuses on the gifted and talented, the remainder of this essay examines simulation/gaming for this group.

The literature identifies three categories of talented children: (1) those scoring high on IQ tests, (2) those who think divergently but do less well on these tests, and (3) those who can do both. All three groups improve their skills by participation in simulation/gaming; therefore the rest of this article considers them together.

Many behaviors characterize the gifted and talented child. Several of these traits relate directly to simulation/gaming.

1. The Gifted and Talented Child Demonstrates Extreme Curiosity

   Simulation/games offer players new experiences. The curiority of participants increases as they seek additional information to understand what has taken place in the game.

2. Gifted and Talented Children Operate at High Levels of Abstraction

   A simulation abstracts metaphorically from real world events. Therefore good ones meet the need of the gifted for abstract thought. (Simulation/gaming allows two persons to play the same game simultaneously, each operating at a different level of abstraction. This is an additional advantage. An average student plays against a gifted one. Since most contests contain elements of chance, the game is not hopeless for the former and s/he can easily maintain interest).

3. The Gifted and Talented Can Follow Complex Directions

   Game designers face the problem of reality orientation. This measures the extent to which a simulation conforms to actuality. All games (as well as all other media--including textbooks) are selective, leaving out many aspects of the world. Including too much can transform the game into the actual event. Excluding too much distorts the process so badly as to render the exercise valueless. A designer seeks to find a balance. In order to accomplish this, complex directions often accompany simulation/games. Sometimes these are difficult for average players to understand, but the complexity adds to the games enjoyment for the talented.

4. Children Endowed with Special Ability Accept New Ideas Readily

   A good game provides new perspectives for players and often makes the familiar strange. In this way, it offers ideas that stimulate the gifted while increasing their creative behavior as well.

5. The Gifted and Talented Student Has Many Interests Along With An Appropriate Attention Span for Exploring Them

   Games of all sorts attract bright children. Chess has always fascinated them, providing an interesting--often exciting--contest. Quality instructional games have the same effect, capturing interest and holding attention.

6. These Children Possess Rich Imaginations

Many simulations contain fantasy scenarios; students imagine themselves in other roles, times, and places. This feature matches well with the fanciful nature of able children.

7. Independent Work Characterizes the Gifted and Talented

Instructional games require development of independent strategies, supporting the bright child's desire to work alone.

The gifted and talented need the social and emotional support of their peers as well as intellectual interaction with them. Some research (see J. Saye in The Journal of Social Studies Research, Winter, 1978) indicates that boredom results from a lack of these factors and this often leads to negative self concepts. For these reasons, the occassional isolation of bright children (for perhaps a few hours each week) seems worthwhile. Special classes can be offered to provide additional challenge; a trained resource teacher can be probided to work with these students. Hundreds of quality games exist for use in enrichment classrooms (for an annotated bibliography of 1100 of them, see R. Horn and A. Cleaves, The Guide to Simulations/Games for Education and Training, Sage, 1980). Many different ones can be played depending upon the nature of the group. (I have sometimes played games with gifted children in my local school district; the children respond well. Once as a follow up activity, the resource teacher asked the children to construct board games of their own).

Some research (see M. A. Bosse, Journal of Creative Behavior, Vol. 13, Number 2, 1979) suggests that creative children tend to be more adventuring and less defensive than non-creative ones. This study also notes the existence of greater frustration tolerance among these students. Games require these behaviors and this provides further evidence of their relationship to creativity.

Gifted and talented children need individualization of instruction just as other students do. Simulation/games probide for this, permitting and encouraging idiosyncratic strategies that can be played at varying levels of abstraction.

Many suitable games are available for use with exceptionally talented children. This essay concludes with brief annotations of some of them.

Failsafe

This computer simulation of Eugene Burdick's book works well with pupils who are twelve years of age and older. While not an exceptionally difficult game to play--it requires some role play--it attracts gifted children because it utilizes a computer; this requires the learning of interesting and non-traditional skills.

Mankala

In this African game, players move stones around a board; by creating good patterns, they win these objects from their opponent. Part of the value of this exercise comes from its non-western origins; it offers bright children experiences from another culture.

Mastermind

This commercial game is an outstanding one for use with talented children. It requires two persons; one establishes a secret code and the other attempts to break it. Players then reverse roles. Mastermind exists in many versions at several levels of difficulty. This ideal exercise achieves many of the outcomes described in this article.

The Propaganda Game

This complex activity acquaints players with propaganda techniques. It helps persons identify and understand many typical persuasion devices. While particularly useful in an English course, it can be played with bright children in many settings.

Spectrum

This teaches students the primary colors. Players gain territory on a board as they position the colors they have been given. The process requires careful planning and rapid understanding of the nature of the spectrum.

Wiff'n Proof

This game of logic requires students to devise complicated mathematical systems. It has become one of the most popular of its type and can be highly recommended for gifted students.

In describing games for this population, calculator games need mention. Since becoming relatively inexpensive, these machines have been used for many purposes including gaming. Two recent books contain many examples:

Donner, Michael. Calculator Games. New York: Golden Press, 1977. Thiagarajan, S. and Harold Stolovitch.

Games with the Pocket Calculator. Menlo, California: Dymax, 1976.

Locating Free Materials to Motivate Gifted Students in the Regular Classroom

by

Charles R. DuVall, Ph.D.
Indiana University at South Bend

Locating materials to help gifted children in the regular classroom has always been a problem for the dedicated teacher. They are constantly searching for new and different sources from which to obtain help and challenge these children. Free -- or to use a more accurate and appropriate term -- sponsored materials, offer this help to the person seeking it.

The teacher is always faced with the difficulty of locating appropriate instructional materials. In the case of the projects for the instructional enrichment of the program for the gifted child, the gifted student should be actively involved in this quest. This student should be provided with the basic resource tools and a project which is sufficiently interesting to totally involve him (her) in this quest. The student should be encouraged to seek out materials which will, based upon the catalog description, provide help in obtaining data and illustrative materials for the project.

An example of this type of project (presented for illustrative purposes) is to plan a summer vacation trip across the United States (or to Europe, or around the world for that matter). The first step is to plan the route of the trip in general terms (map reading) and the time it will take to accomplish this trip. Daily stops can be planned (estimating distances and terrain features) and planning sight-seeing stops along the way. Built into this is the necessity to estimate the cost of food, fuel and lodging (economics). Of course comparison and contrast can be used, as well as flexibility of choices if AMTRAK schedules and routes or bus company materials are used in the exercise also. This is most appropriate for students at higher levels. After the general outline of the trip is established the student can be provided with the booklet 1001 Sources for Free Travel Information as well as other sources listed in the source list at the end of this article.

The student should then prepare letter of request (language arts) for illustrative travel brochures and other required data to effectively plan the trip and have illustrative material for later use. The teacher should, in all cases, counter-sign each letter of request in order to insure sponsors of the authenticity of the project. As the brochures and other materials are received the student can begin to examine them and see if their contents meet with the catalog descriptions (comparison and contrast) and their own expectations. Quality comparisons will also begin to emerge as more materials are received (expectations vs. reality). If additional data are needed the student can then be encouraged to seek additional reference sources and to write additional letters of request. The school librarian can be of assistance in this effort.

In planning for "side trips" or stops of interest the source book Catalog of Museum Publications and Media can be of much help. The student can also be encouraged to seek out persons in the local community who may have visited some of the sites and talk with them. This interview may even be recorded and later played for the entire class (interviewing skills and oral history). If the resource person has slides these may be borrowed for illustrative purposes (the teacher must take personal responsibility to insure the safety of these "memories") or the resource person may be invited to visit the classroom and share their experiences with the entire class.

The gifted student may also be encouraged to prepare a scrapbook using as illustrations the pictures cut from the more colorful brochures received. The Kodak Ektagraphic Visualmaker Kit can also be used to make color slides taken from pictures in magazines and resource books to be used to visually enhance a culminating activity.

This is but one example of a project which can be used to enhance the educational program for gifted students in the regular classroom. It requires a minimum of expenditure for materials and a maximum return in educational value. The teacher can augment and supplement activities and the entire idea can be used in almost any other area of instruction. Projects involving economics, business, manufacturing, science, and history can be instituted. The list is only limited by the imagination of the teacher and the ingenuity of the gifted student. The nice feature of free (sponsored) materials is that they are available in almost any field of study the gifted student may choose to pursue. The project can be tailored to the individual interests of the student or group, and its complexity and duration is entirely dependent upon the maturity of the student or group and the continuing interest generated.

The following is a list of sources of free and inexpensive materials catalogs and resource books. The asterick (*) is used to indicate those judged most valuable by the author.

The following guides should be in the school curriculum library:

*Educators Grade Guide to Free Teaching Aids

*Educators Guide to Free Science Materials

*Educators Guide to Free Social Studies Materials

*Educators Index of Free Materials

*Elementary Teachers Guide to Free Curriculum Materials

Educators Guide to Free Audio and Video Materials

Educators Guide to Free Films

Educators Guide to Free Filmstrips

Educators Guide to Free Guidance Materials

Educators Guide to Free Health, Physical Education and Recreation Materials

All of the above are published by Educators Progress Service, Inc., 214 Center Street, Randolph, Wisconsin 53956. Complete data may be obtained from them prior to ordering.

Aubrey, Ruth., Selected Free Materials for Classroom Teachers, Belmont, California: Fearon/Pittman Publishers, Inc., 1977.

Kenworthy, Leonard S., Studying Africa in Elementary and Secondary Schools, third edition (1970); Studying China in Elementary and Secondary Schools (1975); Studying India in Elementary and Secondary Schools (1975); Studying Japan in Elementary and Secondary Schools (1975); and Studying the U.S.S.R. in Elementary and Secondary Schools (1975); New York: Teachers College Press, Columbia University.

*Wasserman, Paul and Esther Herman, Catalog of Museum Publications and Media, 2nd edition, Detroit, Michigan: Gale Research Company (Book Tower, 48226), 1980.

Teachers may wish to purchase for their own the following:

*Jurgen, Jens, 1001 Sources for Free Travel Information, Kings Park, New York: Travel Information Bureau (Box 105), 1978 ($4.50).

*Moore, Norman R. editor, Free and Inexpensive Learning Materials, Nashville, Tennesses: Incentive Publications, Inc. (Box 120189), 1979 ($5.50).

Weisinger, Mort, 1001 Valuable Things You Can Get Free, tenth edition, New York, Bantam Books, Inc., 1977 (on local paperback bookshelves).

Teachers may also wish to have their name placed on the following mailing list:

*Selected U.S. Government Publications, Superintendent of Documents, Government Printing Office, Washingt, D.C. 20402.

The following book may be of interest to those teachers wishing to examine different aspects of the use of free materials in their instructional programs:

DuVall, Charles R. and Wayne J. Krepel, Free Materials and Education, Randolph, Wisconsin: Educators Progress Service, Inc., 1978 ($7.95).

Anderson, Alan R. and O.K. Moore. "Autotelic Folk Models" in The Sociological Quarterly. October, 1960.

Berne, Eric. Games People Play. New York: Grove Press, 1964

Bosse, Murella A. "Do Creative Children Behave Differently?" in Journal of Creative Behavior. Volume 13, Number 2, 1979.

Davis, Morton D. Game Theory. New York: Basic Books, 1973.

Duke, Richard. Gaming: The Future's Language. New York: Halsted Press, 1974.

Henson, Ferris O. Mainstreaming the Gifted. Austin, Texas: Learning Concepts, 1976.

Horn, Robert E. and Anne Cleaves. The Guide to Simulations/Games For Education and Training. Beverly Hills, California: Sage Publications, 1980.

Osborn, Alex. Applied Imagination. New York: Scribners, 1953

Saye, John. "Social and Emotional Adjustment of the Gifted Child" in Journal of Social Studies Research. Volume 2, Number 1, Winter, 1978.

Torrance, E. Paul. Encouraging Creativity in the Classroom. Dubuque, IA: Wm. C. Brown Co., 1970.

Torrance, Paul and R.E. Myers. Creative Learning and Teaching. New York: Dodd Mead and Company, 1970.

Yablonsky, Lewis. Psychodrama. New York: Basic Books, 1976.

Adolescents are Gifted Too!

by

Donald W. Jones
Ball State University
Director of Secondary Teacher Education

INTRODUCTION

American secondary schools have not developed outstanding track records in serving the gifted/talented/creative students who attend public junion and senior high schools. When providing comparative information regarding attempts in the United States, Canada, and England to serve adolescents who possess widely differing but superior capacities for learning, growing, and performing, Vernon, Adamson, and Vernon substantiated the commonly accepted premise that specially endowed students are often neglected.[1] All too grequently the most positive thing which has been said about the educational experiences which have been provided for the gifted/talented/creative adolescents in our schools is that the schools were not too detrimental to the progress of the students. Of course, we have all heard of instances (and most can think of examples) in which a negative, repressive, or unchallenging atmosphere of the junior high or the high school as caused gifted students to join the ranks of other less capable students who have chosen to become school drop-outs. The resulting potential loss to society has become a major national concern of the 1980's.

Background Information

Thorough and exhaustive reviews of prior research, experimental programs, or of proposals to meet needs of superior students are not the purposes of this article. In order to provide a backdrop, however, the following few points are presented.

Writing in 1928, H. H. Goddard noted, "the literature on gifted children is already extensive numbering more than five hundred titles along."[2] Goddard further noted that three periods of development could be identified between 1867 and 1928.

1867 -- Flexible Promotion Approach
-- Rapid Advancement Approach
1920 -- Enrichment Activities Approach

The advanced students activities cited by Goddard focused primarily upon the elementary grades. A few examples of junior high school activities was included in the report.[3]

The earliest empirical research efforts were conducted by L. M. Terman. His work together with that of his colleagues has provided an extremely valuable

source of data for other researchers wishing to expand the knowledge base. These early studies were equally influential in encouraging the development of numerous experimental programs designed to accommodate the educational needs of gifted children.

"Historically, the term 'gifted' has included only those children who scored above 120 on an intelligence test or who were in the top two per cent of their group." In 1931, the White House Conference on the Gifted stated that the term "gifted" was to refer only to those children who had exceptional intelligence and was not inappropriately to include those children with special talents in music, arts, poetry, or other areas.[4] Much has changed since 1931.

The North Central Accrediting Association sponsored a project which culminated in a book titled, Building a Program for Superior and Talented High School Students. This 1963 publication focused upon means of establishing programs for direct implementation.[5]

"What's Happening to Gifted Education in the United States Today?" is the title of a report presented by Bruce M. Mitchell in the April, 1980, issue of the Phi Delta Kappan (pp. 563-564). In this current report, attention is focused upon the states which have gifted/talented programs. Mitchell reported that only five states have not implemented state-wide programs and that the legislatures in two of these states were considering the implementation of such programs. After presenting financial data and considering a few issues, it was concluded by Mitchell "that gifted/talented education programs are healthy and vigorous."[6]

The above data are presented as a point of departure for this brief step into the very exciting, challenging, and frustrating world of the gifted and talented adolescent. This world probably remains one of the most neglected areas of public secondary education. While proposals are made, budgets developed, state-wide initiatives implemented, and multitudes of books and articles published on the topic of Gifted/Talented Learners, a very small proportion of these efforts, past and present, are directed toward early and middle adolescents.

THe U. S. Office of Educatuion has actually established a toll-free hotline on gifted and talented education programs. THe service provides phone information as well as three different information packets—one for the general public, one for teachers, and one for parents. This service also includes descriptions of research projects. In response to an inquiry made on April 9, 1980, it was learned that the center has just completed the revision of the original packets. The revision will contain an update of previous data. Considerable additional data is now included. Expanded covereage to focus upon creatively, improving reading and parent information is available. The materials mentioned are available upon request. In addition specific questions may be addressed to the center and referral services or reference aid may be provided.

Adolescents Need Sensitive Programs

The above review of selected historical elements should have led to the conclusion that there is yet much to be learned regarding the most desirable

means of serving the general goals as well as the especially unique needs of gifted/talented adolescents. This statement does not suggest that we do not have available much sound information. In fact one of our major problems lies in not being able to implement, to put into practice that which has already been discerned through study, research, and experimentation. Difficult questions relating to sociological, political, and economic implications attached to special and different programs which are unequal as a means of serving these adolescents are certainly not yet resolved. Individual young men and women for whom something beyond "common" schooling is desirable must not suffer, however. Progress is needed!

Each teacher, each principal, each supervisor has to accept some responsibility for helping gifted, talented, and superior students. Recognizing and understanding which of the many faces belong to special students is a beginning. Caring comes second. Thoughtful planning, communicating, and supporting are also essentials. Almost all junior high or high school teachers could improve success rates with gifted-talented students by learning more (1) about these students, (2) about their special skills and abilities, (3) about what some other alert, concerned professional teachers have done, and (4) about what cooperative efforts can be developed.

Teachers learn much through experience. Additional expertise comes from study. The following characteristics of GT & C students have been derived from a variety of publications as well as from direct discussions with teachers. The list is selective; every reader can (and is invited to) add items.

1. They can use materials, words, ideas in new ways for their own purposes.

2. They reason soundly, think clearly, recognize relationships, comprehend meanings, and may or may not come to condlusions expected by the teacher.

3. They are alert, possess large vocabulary, and are very inquisitive.

4. They know about many things which most youth are unaware, and such information is not always socially acceptable.

5. They are able to influence others.

6. They enjoy participating in competitive activities.

7. They can complete difficult mental tasks.

8. They learn rapidly butnot necessarily what is assigned in school.

9. They have the capacity for outstanding achievement; this potential is not always realized however.

Can you now supply the names of two or three students which you know who fit this description?

Through encouragement, freedom, support, understanding, willingness to permit differences, sensitivity to what feelings are important at the moment, and an openness to student values and goals the GT & C students can be served in our schools. Each day, classroom teachers do make good, positive decisions. The work of one gifted-talented student is presented as evidence that it can be done. The student, a 15 year old adolescent boy, possesses high verbal skills and lots of emotional sensitivity. His school environment nurtured these traits sufficiently to encourage the following extemporaneous response to the question, "Where did you like to go when you were 10 years old?".[7]

TRIPS TO REMEMBER

Going to Grandmother's house is an experience most ten-year-olds dread. Grandma's house, old, dusty, and fully of pictures of persons no one knows, is always one of the most disgusting places a child knows of. Grandma herself is old, dusty, and full of stories about the people in the pictures that no one knows of. My grandmother, however, is an exception to that rule.

I could never wait to go to "gram's." My parents would avoid telling me we were leaving until the last moment. They were smart, for I would be hyperactive the moment I knew we were leaving.

Life was not a total bed of roses in relation to the excursion to Gram's. First there was that long, awful trip in the car to get there. The car ride shouldn't have taken over seven hours, yet shomehow it always took nine. What was the reason? Between Gram's house and our house there lies one treacherous area--Columbus, Ohio! We would always stop and shop . . . and shop . . . and shop . . . .

Finally we would arrive. Carefully, I would climb up the cement stairs and continue tiptoeing until I reached the wooden stairs. After climbing them, I rang the doorbell, and took off running as fast as I could. As the back of the house, I could hear my Grandmother shouting: "There's no one here!" I then would ring the back doorbell, run back to the front of the house, sneak inside, and surprise my Gram with a firm hug.

Gram!! She was my favorite person in the whole, wide, world. Big: big enough always to be the perfect football player--which she undoubtedly would be the next day after we came. Tall: towering over everything and everyone so that she would let everyone know how wonderful she was. Fat: fat enough so that when you "snuck up" on her and jumped on her back, you would roll over her shoulders, hit her tummy and bounce off. Her back was long, straight and hard; perfect for being the wild horse that only I could tame by riding around the room. Her legs were bony--just right for looking funny when we would dance around the room to my favorite record.

Her hands were rou , dry, and cracked. I thought this was so they would give perfect back rubs. The real reason was that they had spent many years working

in steel mills and during the Depression. Gram's face was full of wrinkles which she could make into all different shapes. Her teeth could come out! She would make her teeth come half way out, and frown. We would laugh for so long! Her eyes would always twinkle from behind the glasses she wore, yet they would always cry when I left. Her ears my magical. They would always have to hear a joke twice so we could laugh more, yet they could hear me whisper to my friends what I wanted for Christmas.

Her house was made for little boys. It had the wonderful smell of West Virginia steel valley--dirty. But there also always a smell of the cake she had just baked--especially for me.

Her house was full of closets which were there so I could explore and find little things which would intrigue me. Strangely, they would always find their way into my suitcase before I left.

The house had secret hiding places--not for me but for packages which my Gram and I would always go on a treasure hunt to find. In one package would always be a bra or a girdle and my Gram would take a picture and we would laugh.

After a day of playing football, baseball, and board games with Gram and my friends, it would be time to go to bed. I would stomp up the steps so that they would make the funny sound that 11 old houses make. My Gram would tuck me into bed (my very own bed!) and she would rub my back and we would sing songs until I went to sleep.

Even today, when my father tells me we're going to West Virginia, I become excited. I don't jump around any more, but I am happy to know I will see my Gram again.

When we get to the house, I can still smell the cake that just come out of the oven, and my Gram and I still run to hug each other. We don't play football any more--after all, she isn't the young gal of 72 like she was when I was ten, she is now a 78 years young. When we all go out to the car to leave to come back to Muncie, I find that I am beginning to become like a grandmother, for my eyes will water up just like her.

HELP A GIFTED ADOLESCENT TODAY

References

[1]Vernon, Philip, Georgina Adamson, and Dorothy Vernon. The Psychology and EDucation of Gifted Children. Boulder, Colorado: Westview Press, 1977.

[2]Henry H. Goddard, School Training of Gifte d Children, World Book Company, Yonkers on Hudson, New York, 1928, p. VI.

[3]Henry H. Goddard, School Training of Gifted Children, World Book Company, Yonkers on Hudson, New York, 1928, p. VI.

[4]Getzels, J. W. and J. T. Dillon, "Giftedness and the Education of the Gifted," Second Handbook of Research on Teaching, Chicago: Rand McNally, 1973, pp. 689-732. ed. R. M. Travers.

[5]J. Ned Bryan, Building a Program for Superior and Talented HIgh School Students, NCA, Chi----, 1963.

[6]Bruce M. Mitchell, What's Happening to Gifted Education?, Phi Delta Kappan, April, 1980.

[7]This assignment was completed during the Autumn of 1979 at Burris Laboratory School, Muncie, Indiana.

Learning Through Doing: College Undergraduates Plan for the Local Academically Talented

by

Paul Allison, Kimberley Killham, Margaret Stepniewski
DePauw University

As future teachers, we know that all teachers must deal with wide discrepancies of ability among students in their classrooms. Every teacher has had the experience of having at least one child who would work a whole grading period on one question. There is also the child who is all but finished on an assignment before the teacher completes the instructions. These two examples are common daily occurances to the classroom teacher.

The community in which our student teaching took place is not atypical in its handling of discrepencies in ability among students. There tends to be a majority of attention, both in the classroom and in special programs, toward the less academically talented children. In 1978 Congress appropriated one billion dollars for education of the physically handicapped but only five million dollars for the gifted, under the "handicapped" bill.[1] These figures support our view that the academically talented are the last to receive special attention in the educational system. An illustration of this point is that fact that our community had no additional funding, special classes, or programs for these students.

This article tells how we as undergraduates majoring in elementary education have worked with the local school system in exploring, planning, and establishing programs for gifted students. The parts of this process included in the article are: the formation and education of the undergraduate committee, questionnaires/surveys distributed to gain different kinds of information, visiting existing programs for the gifted, Saturday Morning Sessions, and conclusions about the success and validity of the committee. We felt that our experiences as undergraduates involved in curriculum development in our community were worth describing. It is our hope that this unusual approach will yield useful information and insights in the curriculum development process for all children.

In March 1979 the Gifted Child Committee (GCC) was formed at DePauw University at the request of a local school administrator. Consisting of six elementary education majors and an education professor, our purpose was to deal with the lack of attention being given to the academically talented students in the community. Few in the original group had more than a layman's knowledge of what "academically talented" meant, and the committee soon was caught in a web of misconceptions, misunderstandings, and lack of direction. We realized that the endeavor was not going to be as easy as first imagined. We felt the mounting pressures of red tape and inadequancies due to lack of knowledge in the field. The seniors in the group came to the conclusion that accomplishments that semester would be minimal.

A questionnaire distributed to the elementary teachers in the local schools was the first major undertaking of the GCC. It was not forseen that certain aspects of this questionnaire would be unclear to the teachers. The varied reactions obtained from the teachers revealed numerous misconceptions as to the meaning of the term "gifted". Many of the teachers felt that "gifted" meant only the 203% of the student population with superior intelligence. Since the committee had allowed for a broader definition of gifted, we found it conducive to our purpose to change the nomenclature to "academically talented."

Other actions of the first semester of existence were directed towards the committee's education on the subject. A visit to the Purdue Resource Center, contact with the State Department of Public Instruction, and independent research helped each of us to gain a working knowledge. The committee's work for the semester drew to a close at graduation with four members leaving. Over the summer, the continuing membership took on the challenge of finding materials, plus using any other means to get to know more about the "academically talented."

The local school administration gave the committee priority on the program. Unless the committee dissolved, no other interested party would be given a chance to work on the program. This may seem to be an ideal situation, but it meant added responsibility and pressure. We were the ones who had to initiate every move, although the administrators did give their attention to listen to our ideas. Even with this, it was hard to demand top priority decisions from them on the ideas brought up for discussion. Other items of agenda, common to all schools, had to be taken care of first. Possible programs proposed by the committee were often so far down the agenda that they were continually moved to the following week.

The committee re-formed in the Fall of 1979 with only three members. Since one member was doing her student teaching, major activity was not resumed until November when three additional members were added to the committee. A general education on the subject of "academically talented" was possible through time denoted for a credited independent project. This gave three of the members more time to research the area and gave the committee the impetus to go from discussing what should be done to creating an actual program.

Each of the three members who was working independently took a different approach to the academically talented subject. One centered on identification, another on education, and the third on different programs in existence and how the participants felt about them. Besides book research, the group also took individual and group visits to area gifted and talented programs. The program observed in Northern Indiana, although only in its second year, was fully in progress. The school system involved was much larger than ours. They have a separate classroom per grade level for the superior students, which would not be feasible in our community. Their program was started by the system's superintendent and other interested community educators. It involved busing the children from all areas of the city, developing a continual identification procedure, and creating extensive materials. Much of the work done by the students is independent with either

contracting or learning centers as the main method employed. The committee gained many valuable insights of what might be used in our program from this experience.

Of the gifted and talented programs visited, the program in Southern Indiana is probably most accurately comparable to any potential programs for our area. This assumption is based on the size of the communities being compared and their economic/occupational make-ups. The community we visited has a population of approximately 11,000 compared to about 9,000 here. Both towns are primarily farm-oriented with some small industries. Both towns are the county seats of counties that have populations of approximately 27,000. Therefore, it could be assumed that both could produce very similar programs for gifted and talented. Our area has an advantage in that it contains a college with its potential resources.

This program uses a title that attempts to get away from the stigma associated with elitist programs. Children in grades 2-6 are eligible for the program. The program is divided into two parts: Academic and Gifted Art. This year there are 77 in the Academic division and 30 in the Gifted Art division.

The children are tested every year for admittance to the program. They use seven criteria for selecting the participants. One point is given for each of the criteria. The student must meet all requirements in the regular classroom or be put on probation for six weeks. The Superintendent of Schools is striving to involve 10% of the student population in the program.

The children in the program are picked up on the bus and taken to one of the elementary schools. Each grade level spends two two-hour sessions per week in the program. Friday is field trip day. The academic part of the program has a teacher whose sole function is to be teacher of the gifted and talented. The art part of the program uses teachers who teach other groups also. After-school mini-courses that are open to all students are also utilized.

The program came into being through the work of an Advisory Council formed in the community in the 1976-77 school year. Many long hours of work by the Curriculum Director and the person who now has the title of Director of Gifted and Talented went into the planning. The Director of Gifted and Talented and Curriculum Director visited numerous programs and did extensive research into all aspects of a gifted and talented program.

All the costs of the program were financed by the school corporation, with most of the money being spent for materials. The program has a vast selection of resource materials. The program has received mixed feelings among members of the community. Some people feel that the money spent for the program could have been put to better use with other segments of the school population, while others are highly favorable of the program. After observing the programs, we focused again on our own project.

In a meeting of the committee with the local school's curriculum director, she asked us to find out what types of practices and programs were presently being used across the country. We felt that a good way to get a cross-section

of programs and practices being utilized in the Midwest and other parts of the country would be to survey the DePauw students.

A survey was constructed and distributed to three women's dorms, one men's dorm, and two coed dorms on the campus. In total, 650 surveys went out that were hoped to get a good sampling of DePauw's 2,400 students.

The survey spelled out the fact that it was being used to aid in the establishment of programs for the academically talented in the local schools. The questions regarded programs that the DePauw students had been exposed to in the elementary, junior high, and high schools. We asked if they felt the programs in their community were adequate and how they would improve on them. We also asked the name and approximate population of their home community.

Of the 650 surveys distributed, an appalling thirty were filled out and given to the receptionist at the respective dorms. This meager outcome was not predicted and thus very frustrating. We interpreted the low response to be due to apathy, unwillingness to devote a few minutes time, no desire to help community schools (division between town and gown), and lack of interest in other people in the "me" era.

However, the thirty surveys received did encompass a wide variety of programs and quite a few different regions and population sizes. The information from these surveys was useful.

During January 1980 one of the committee members did her Winter Term (a four-week session for a mini-course or independent project) on getting a program started for the Spring semester. Unfortunately the project was not as successful as planned since the curriculum director was out of town most of the month. Nevertheless, the lines of communication were opened to the point that misunderstandings were no longer present. The number one goal at this time was to get into the schools with some sort of a small scale pull-out program on a weekly basis. While waiting for a go ahead, the committee circulated a questionnaire to all education majors.

The main focus of the questionnaire was to identify those persons willing to help out with in-school, after school, or Saturday morning classes for the academically talented. The response was very positive (thirty-eight of forty-two responding affirmatively) which proved to us that DePauw students do see or feel some srt of deficiency in the school curriculum for the superior student. The results were also used to find individual strengths and abilities in those responding, so better placement could be made. At the writing of this article, no special classes have started in the schools, but an interest has been aroused in both administrators and teachers to the point that they have started doing something instead of just talking.

The curriculum director plans to assemble the results of the survey of education majors into card files that will be available to classroom teachers. The listing for each student will include any areas of speciality the student has that might be utilized in working with the academically talented. Another step taken to provide better opportunities for more advanced students is that the elementary school principals have agreed to schedule reading in all primary

grades at the same time of the day. This will enable students who are reading above grade level to receive instruction at their appropriate level. The curriculum director is presently investigating plans to implement in-service sessions for teachers insterested in working with academically talented students.

The numerous hours spent in curriculum development reap benefits in the long run but often seem fruitless in the beginning. We found ourselves increasingly anxious as to whether we would get to work with the children. We decided, in the event that activities or programs were not instituted this year, to organize and implement three three-hour sessions to be held on consecutive Saturday mornings.

In developing goals and objectives for the Saturday morning sessions, we tried to come up with plans that would be interesting, different than usually occur in the classroom, contain material that could be taken back to the classroom, require outside work between sessions, and most of all would have educational value for the academically talented. We came to the conclusion that it would be simplest and most productive to narrow our focus to one field of study. Three separate topics would lack cohesiveness and would require more human and non-human resources than we had intended to draw from.

An integral aspect of planning the Saturday morning sessions was developing a situation which we could handle and control to the extent that a success would result. We felt it was of extreme importance to present the community with an example that works. Future undertakings of the DePauw faction of the team would inevitably suffer from a failure by the initial project.

Public relations were of vital importance in establishing positive attitudes in the community toward activities of this sort. Our announcement and description of the Saturday morning sessions was distributed through each of the four elementary schools in the school system giving credibility to our sessions.

We initially decided on law and the courtroom as the topic of the sessions. Objectives were established that involved acquaintance with judicial proceedings, creative role-playing, enrichment, independent work, group interaction, leadership skills, research skills, and opportunities to learn about this important aspect of the government.

In a meeting at the beginning of the sixth week of the semester, we discussed complications that were holding back the progress in the development of the sessions. At this time, we were feeling the pinch of not being able to find the time to do all the things that we needed to do. One member of the committee is unable to help with the sessions because she is involved in student teaching. Another member is married with a family and job besides her school work. The remaining three are involved in job searches, in addition to heavy course loads and other extra-curricular activities. Because of this, we questioned whether we had time to tackle an undertaking of this kind.

Discussion then turned to the possibility of changing the subject matter of the Saturday Morning Sessions. Law and the courtroom was a topic that none

of the members were familiar with. This lack of familiarity would require us to do a great deal of research and seek outside help.

We came to the conclusion that we should change our focus to a topic that we were more familiar with, that would enable us to create quality sessions in a minimal amount of time. We decided to focus upon Language Arts as a logical choice since we have received strong training in that area. Since creativity is positively related to academic talent, we chose to incorporate creativity with the Language Arts topic. We consulted the list of resources from the "Gifted Center" at Purdue University and were encouraged by the fact that many materials relating to Creativity in the Language Arts were available.

For attention-getters or special activities to promote the children's interest in our sessions, we came up with the idea of incorporating a "headliner" for each session. This person would take a half hour of the session he/she was involved in to make their presentation. Drawing from resources of the DePauw community, we tentatively came up with four possibilities for readliners: (1) a DePauw student who does an impersonation of Mark Twain, (2) the daughter of a bestselling author to talk about the processes of creative writing her father uses, (3) a DePauw composition major who specializes in fiction, (4) and a DePauw professor who is a poet and expert in the field of poetry.

We are unable to publish the results of our program since the deadline for this article comes before the sessions will take place.

It is true that the work of the committee has at times been very frustrating and the results of our work has not been exactly what we had planned. However, we have learned a great deal from this experience in curriculum development. We were able to sustain interest long enough to establish a good background in the area of the academically talented. Even though we did not always get the results we had planned, we <u>did</u> get results. Specific attention given to the needs of the academically talented is now a reality in our community. These results came through processes of compromise which we found to be essential in curriculum development. We were able to work in a real situation--which is not always the case in teacher education.

We have shown that undergraduate students are an alternative vehicle that can be used to get programs started in an area of the school curriculum. It is possible for college undergraduates to effect a change by working cooperatively with schools.

This experience has reaffirmed our belief in Dewey's theory of learning by doing. We have gained a great deal of knowledge, both general and specific, that we can carry into our teaching careers. We encourage other teacher education programs and school systems to work cooperatively in the exciting curriculum process. Through "doing" experiences, both positive and negative, students can acquire knowledge and gain insights which cannot be obtained in the college classroom.

Gifted Education - Alive and Well in the Regular Classroom

by

George H. Schauer
Northwest Tri-County Intermediate Unit
Edinboro, Pennsylvania

In Northwestern Pennsylvania the mid-1960's found several school districts beginning "enrichment programs" which for a period of one-half day, or one full day, per week, brought gifted children of similar age levels together to work on developing skills and projects in keeping with their abilities. As a teacher of the gifted in those early days, and now the gifted program supervisor, a certain pattern was seen to emerge. This pattern has had the impact of benefiting the gifted children they served, but has not had the effect of affecting the gifted child's total school program.

The pattern has been that after initial hesitance and in some cases opposition by parents of the gifted and regular classroom teachers, two or three years of enrichment classes have served to "wear them down" and acceptance is the norm. The result is that gifted children are not hassled by classroom teachers in terms of excessive homework, or the missing of special events in the classroom, or missing tests, or whatever often caused undue pressure mentally for some gifted children. These are positive changes to be sure, and the absence of such problems causes parents to become much more accepting. The pattern at this point seemed to lock into a hold position.

The holding pattern in effect was a support of the special programming for the gifted, but did not progress to the point where curricular modifications within the regular classroom for the gifted became the norm. While lip service to the fact that a gifted child all of the time (although not necessarily in all areas) and not just one day per week, is universally given, most gifted children do not receive instruction, or an appropriate course of study, at their level of learning during those other four days of school each week.

Is it possible for regular classroom teachers to modify the basic academic subjects to meet the needs of their gifted children without denying other students an appropriate share of their time? Do classroom teachers possess the necessary understanding of gifted children and their unique characteristics to make classwork challenging? What is there about gifted education that makes it different than other education, and is this difference known to regular educators? Unfortunately, although it is necessary for the answers to these questions to be yes, the initial reaction of classroom teachers is negative, or at best uncertain, concerning each of these.

It is not difficult to assess the many reasons for this uncertain, or negative, response. Few classroom teachers have had the opportunity to take courses concerning gifted children and most workshops or conferences about

the gifted children and most workshops or conferences about the gifted, have tended to emphasize the role of the special class teacher, or be geared to theory, which rarely converts easily to what I can do Monday morning in my classroom. Most classroom teachers already feel the responsibility of meeting needs of other exceptional children being "mainstreamed" into their rooms on a regular basis, as well as the pressure of many times having too many students to adequately individualize for any one special need.

Not to be overwhelmed by the task of "turning teachers on" to gifted children is not helped by the very limited, often non-existent, in-service time available in most school districts to work with regular classroom teachers.

These briefly were the problems we encountered in considering how to move the "holding pattern" to the state where gifted education could be alive and well in the regular classroom as well as in a special gifted program.

Solving the problem requires a critical look at what does and does not constitute effective in-service. It has been our experience that teacher to teacher delivery of in-service is the best received, even if the level of expertise is not the so-called outside expert, or university professor, or program supervisor. It has also been our experience that it takes more than one hour of in-service to do the job. The time of day is also a critical factor, reporting for in-service at the end of an exhausting day of teaching is hardly optimum for a productive learning experience.

To create the best atmosphere for in-service requires a well trained teacher of gifted capable of delivering in-service to regular staff members. This is the easy part of the problem to solve. More challenging is the manner of providing an extended period of in-service during the regular school day, preferably for a minimum of two complete days. This of course to be accomplished with little extra cost.

Two methods are suggested as means of doing this. The first method requires a great deal of administrative organization, but hopefully will produce results which make the investment of planning time worthwhile. By scheduling field trip experiences, in-school film features, or such unusual events as elective mini-course offerings taught by community volunteers, a carefully planned two days for thos eteachers volunteering (hopefully the entire staff) as recipients of the gifted in-service can be held. Such an approach demands an extraordinary awareness and commitment to improving the quality of gifted education on the part of the school administrator making such arrangements. Usually this approach in a school that has more than one class per grade level will require consideration of employment for one or several substitute teachers to aid in making the in-service happen.

Another approach is the each one to each one concept. In a large school with many teachers at each grade level, or with many teachers per department, one can be chosen at each grade level or in each department, to receive intensive gifted in-service. Their responsibility then is to share with others in

their grade or department what they have gained. To be successful, a definite follow-up plan is necessary to insure that other staff members do benefit. It is possible through re-alignment of classes for those days of in-service to have no additional, or little additional, expense for substitute teachers. In a school district with many smaller schools, one teacher from each building could be chosen to receive the same type of in-service and then share it within their building.

There is something very positive about the collective atmosphere of group in-service of either a complete staff, or representatives of staffs, which make the in-service plans outlines above more advantageous for a unified effort at making it happen school-wide, or system-wide, for the gifted than the more random and self-selecting process of individuals attending courses, conferences, or workshops.

If there is any one characteristic which marks gifted children as they are identified in most parts of our nation, it is a superiority in thinking ability, both in terms of being able to think more quickly, and also in terms of thinking power. Higher scores on intelligence tests reflect at least these global traits. The major goal of gifted in-service must be then to maximize these thinking abilities, in some cases to activate them, by developing divergent thinking strategies with classroom teachers that enable the gifted to use the information they have received and begin producing new knowledge. If we expect gifted children to become adults with abilities to lead, to solve problems, to produce creatively, and to contribute meaningfully to society, then a commitment to create a stimulating learning atmosphere every day, all day, can be begun by providing regular class teachers a foundation of understanding and knowledge of appropriate strategies through innovative and cost effective in-service opportunities

Dr. Schauer holds a doctorate in gifted education from Kent State University and supervises gifted programs in Northwest Pennsylvania for the Northwest Tri-County Intermediate Unit. He, and his teaching of gifted staff, have conducted numerous gifted workshops for regular and special educators.

Mizar: A Program with a Double Purpose

by

Sue Nelle and Grace Dellart
Denton Public Schools

MIZAR (pronounced My'Zar) is a double star in the handle of the Big Dipper. This double star was chosen by the Denton Independent School District to represent the dual purpose of the gifted program in Denton: to enhance the learning of *all children* while expanding the learning environment for those children identified by the district as gifted.

The traditional curriculum of our elementary schools has been replaced by MIZAR curriculum in our MIZAR-trained teachers' classrooms. The new curriculum is based on higher level thinking skills in all content areas. These skills develop the students' ability in analysis, synthesis, and evaluation.

While our program is "reaching for the stars", it is financially feasible for our district. The reason for this is that we have invested in people rather than materials. Dr. Ray Chancellor, Assistant Superintendent for Curriculum, has said, "No matter how well a classroom is equipped with kits and gadgets, the teacher is still the most important key to learning." While an overhead projector or microscope is useful, the teacher interacts with the student constantly and is never put on the shelf! By investing in our teachers through providing extensive training, our district has insured that our personnel is knowledgeable and competent to teach our academically talented.

Since the fall of 1978, 66 master teachers, ready for the exciting curriculum offered by MIZAR, have gone through the indepth MIZAR training consisting of three graduate hours in gifted education. In the basic MIZAR classes the teachers learn to plan curriculum for those who are identified as gifted. The curriculum is based on Bloom's questioning model which stresses analysis, synthesis, and evaluation. A strong emphasis is placed on planning for 90% of the academic day to be devoted to these higher level thinking skills. In addition, the teachers are taught to use Frank Williams' student behaviors in all content areas.

The basic training was just the beginning. The teachers have demanded in-service opportunities and courses developed by Dr. Chancellor and the MIZAR coordinators in conjunction with Texas Woman's University and North Texas State University, both of which are located in Denton. This has enabled our teachers to expand their expertise.

Eighty-five percent of the elementary teachers are now certified as Junior Great Books discussion leaders. In addition, these master teachers, motivated by exciting content and financially underwritten by the Denton Independent School District, have participated in courses such as Creative Math for the

Gifted Child and/or a Practicum in Sharing Learning Strategies for the Gifted. MIZAR teachers, regular classroom teachers, have from three to eighteen graduate hours in gifted education ranging from courses in innovative curriculum to supervision of the gifted.

Inservice opportunities have been provided by district personnel. Dr. Chancellor, a scientist and ornithologist, is available for science presentations, demonstrations, and consultation in developing science curriculum. MIZAR coordinators have presented inservice on both building and district-wide levels covering a wide range of subjects.

An exceptional student qualifying in one or more of the MIZAR Program areas remains in the regular classroom and is taught by a teacher trained to work with high ability students. This approach guards against the student developing gaps in basic learning. The high ability student is encouraged to interact with classmates of all ability levels just as would be done in the real life setting.

MIZAR students have abilities in many diverse areas. Components of language arts, science, math, leadership, and aesthetics are geared to that diversity. The varied capabilities of the students makes it necessary to be flexible, also. MIZAR has built in flexibility through a program of seminars, mentors, and independent study.

MIZAR defines independent study as freedom to work in an area separate from the regular curriculum rather that "lonely learning" by an isolated student. The students work in small groups practicing leadership and problem solving skills in a protected environment. Independent study, "MIZAR style", gives the student an opportunity to pose and solve personal, social interaction, and cognitive problems as they make decisions concerning activities and resources. They must initiate ideas, set goals, and expand skills and concepts in a real rather than a contrived learning situation. As they progress in the independent study, MIZAR students assist their teachers in setting criteria for assessment of the student project. The child has the responsibility for record keeping and evaluation. The natural outcome of the study is to enable MIZAR participants to contribute to their classroom, school and/or community as a resource person.

Because of the high level ability and interest in math and science of MIZAR students, these areas are used in independent study. Such topics as hypothesis writing and testing, statistics, and measurement are used as needed in the student's particular area of study. Science and math seminars are offered as motivational tools to trigger excitement and interest in student to pursue further study in areas matching their interests. Seminars have been held in areas such as calculus, ornithology, probability and statistics, science photography, gaming strategies, color spectrum, and rocks and minerals.

Junior Great Books, a component of the language arts area in our program, gives students with high ability in reading the opportunity to develop interpretive reading skills. Students learn to support their interpretations with ideas and facts from the Junior Great Books selection.

Evaluation is a major skill development area in a MIZAR classroom. It is an ongoing, formative effort by teachers and students. The teacher's role is one of support while the student's role is to take an increased responsibility for learning. The topic of evaluation includes the student's interests, developmental strengths and needs and the ability to use skills and concepts when needed. The student learns that the way a task is undertaken, the product, and the synthesis of an event are important parts of evaluation.

According to John Dewey's philosophy, children must learn to deal with "present" experiences. We have borrowed from that philosophy as we have made our classrooms a place to practice "life skills". In life situations, the high level skills of analysis, synthesis, and evaluation are imperative. Our teachers are learning to transform traditional classrooms into life experience laboratories where individual expectations are met for both gifted students and their classmates. Dr. Robert McGee, Superintendent of Denton Independent School District, suggests, "The answer to reaching gifted students is gifted teaching."

And what is gifted teaching? It is a teacher who is able to respond sensitively and appropriately to the needs and interests of each student. It is a teacher who knows when to stand back and let the student take responsibility. It is a teacher who recognizes that innovative ideas and giftedness cannot thrive without an atmosphere of acceptance. It is a MIZAR teacher.

Our program offers one successful approach to gifted education. It evolved from the recognition that MIZAR teachers must meet the needs of the children in their classrooms. Therefore, MIZAR is intended only to point the way to begin...

References

Bloom, B.S. Taxonomy of Educational Objectives, Handbook I-Cognitive Domain, New York, David McKay Co., Inc., 1956.

Dewey, John, Experience and Education, Macmillan Publishing Co., Inc., New York, New York, 1979.

Vaughan, Grace and DeHart, Sue Nelle, "MIZAR: A Double Star-A Double Purpose", G/C/T, Vol. 10, (November-December, 1979), 58-60.

Williams, Frank, A Total Creativity Program for Individualizing and Humanizing the Learning Process, Educational Technology Publications, Inc., Englewood Cliffs, New Jersey, 1972.

Author Information

Grace Vaughan and Sue Nelle DeHart have worked together in the MIZAR program for the past two years. Before certification as supervisors of gifted education, they were employed by the Denton Independent School District as regular classroom teachers.

"LARC....Learning Activities to Raise Creativity"

by

Jerome P. Oberman
Long Beach City School District

LARC Attends to "The Other Minority"

Education, generally, considers the needs of "the whole child". What about education for the gifted? How far should it reach out to that "different" individual who is judged to be the gifted child? And what about their parents? It isn't so easy to be different...and it certainly can strain the psyche of parents who have had no training for this phenomenon of giftedness--and may have other children competing for attention within the same household.

A significant feature of the LARC Program (Learning Activities to Raise Creativity) in Long Beach, New York is an administrative structure which includes psychological counselling and parent education. It is not unusual for gifted children to demonstrate aberrant social and behavioral patterns, feelings of loneliness and isolation, disinterest and disenchantment with school. The impact of these children upon their families is still another reality. LARC Psychologist/Administrator Gitta Blumenthal provides psychological counselling for LARC students, based upon referral from the teacher... in response to direct requests from parents...and as a result of her observations in LARC classes. Mrs. Blumenthal also counsels parents with regard to children's adjustment problems in school and at home. She discusses behavioral manifestations of specific students with the LARC teachers, suggesting appaopriate intervention and techniques for modifying undesirable behavior.

"The Gifted Child in School and At Home" was the theme of a recent meeting of the Committee for the Gifted and Talented. The group has broad community representation as well as LARC parent participation. Based on her experiences as school psychologist and administrator of LARC, Mrs. Blumental addressed issues of parental expectations, sibling rivalry and social adjustment of gifted children. *"Parents, siblings, teachers and classmates make complex adjustments to the gifted child. The child's self-concept, in turn, is effected by the reactions of the environment to his or her giftedness."*

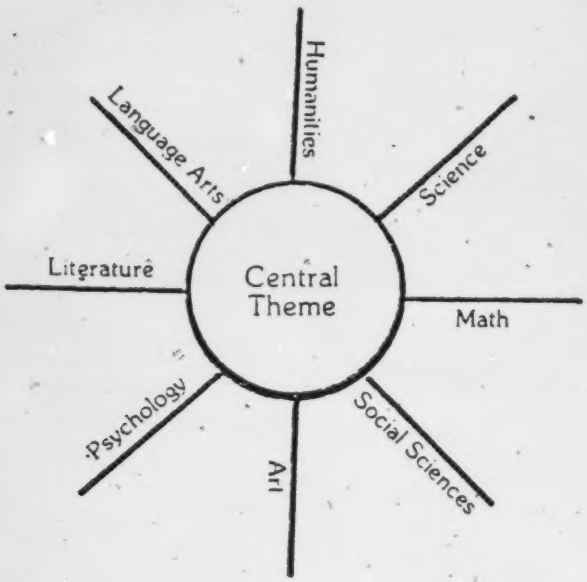
In response to many requests, Psychologist/Administrator Blumental has organized a parent education discussion group for LARC parents. Serving as facilitator, Mrs. Blumental will help parents explore the problems they encounter in the course of raising gifted children. Within this climate, parents can share experiences, feelings and solutions.

The structure of the LARC framework is molded by objectives which integrate intellectual and personal development of the gifted child. LARC's guiding goals include developing aesthetic sensitivity and openness...encouraging a non-aggressive sense of humour...fostering compassion and kindness...promoting

tolerance for and interest in new, unfamiliar or unusual ideas and artistic expression. These objectives are valued equally with developing high level thinking processes and nurturing creative thinking. They are part of educating "the whole" gifted child.

LARC Curriculum

LARC instructors James Borland and Heidi Hayes developed their original curricular design to accommodate the needs they see in gifted children... and provide a substantive construction of curriculum. Using some of the strategies of Renzulli and Tannenbaum, the Hayes-Borland team have presented LARC with an interdisciplinary, multidisciplinary framework which generates divergent thinking as it introduces new worlds of discovery in a climate combining responsibility and open ended opportunities. Curriculum starts with the LARC Concept Wheel.



The central theme branches into all of the various disciplines: Science, Art, Social Sciences, Psychology, Math, Language Arts, Music, etc. etc. etc. Students and staff together decide upon a central theme, and the exploration begins. Readings are selected from journals, periodicals, current literary works and classical writings. Films, recordings, field trips, group discussion, individual projects and various changing materials enhance a curriculum of real substance.

A recent theme was Engineering Problems. Students considered bridges and subways...learning the language of the theme..infusing engineering concepts into their consciousness...observing, researching, exploring alternatives...and finally, solving real world problems. Mythology, another central theme, guided

students through an investigation of the underpinnings of myths and the reasons people need heroes and mythology. LARC students produced a screenplay and film based on their own original modern myth.

Last year, LARC 'shook hands with Shakespeare". They presented "A Midsummer's Night Dream" to the community. "Macbeth" is in rehearsal at this time, and a memorable evening with LARC will take place in June. The Shakespearean production experience belongs entirely to LARC students who attend to scenery, settings, costumes, props, publicity and onstage performance. In this activity, teamwork plays perhaps the starring role. For those gifted children who are admittedly "different" and whose differences tend to dramatize their singularity, the concept of collaboration and cooperation is a most valued component of their educational program. The LARC teachers are themselves role models for pooling talents with great success and personal pleasure.

Spillover from LARC

LARC does not live in isolation. Rather, it aims to raise the level of creativity in the entire school community. LARC teachers and homeroom teachers meet regularly. Psychologist/Administrator Gitta Blumenthal confers with the Superintendent of Schools and building principals for the feeding schools. In-service programs have been presented to the entire District teaching staff. Homeroom teachers attend conferences suggested by LARC...and in turn they share those experiences and insights with other homeroom teachers, via workshops in the District's voluntary Professional Education Center.

The Future

Just as surely as we know that the future belongs to our gifted children... we must also recognize that services for these "different" children must be fashioned so that they attend to "the whole child". It is not enough to attend only to their gifts and their talents. Their education is incomplete without appropriate attention to the special needs arising from those gifts and talents. Giftedness is indeed a mixed blessing.

Dr. Jerome P. Oberman
Superintendent of Schools
Long Beach City School District
Long Beach, New York 11561

LARC STAFF

Gitta Blemental, Psychologist/Administrator
James H. Borland, Teacher
Heidi R. Hayes, Teacher
Debra O. Latoza, Teacher
Ron Rubenzer, Evaluator

"Integrating A Pull-Out Program for the Gifted Into The Total Educational Program of A School District"

by

Gitta Blumenthal
Long Beach City School District

The ideas offered here derive from the experience gained by the writer in the process of developing and administering LARC (Learning Activities to Raise Creativity), a comprehensive district-wide program for the gifted and talented students, in the City School District of Long Beach, New York. LARC is a pull-out program which has been in existence since 1976. It has been funded these consecutive years by the New York State Education Department, which has officially designated it a "Successful Program for the Gifted". The program has been expanded step by step, so that from a modest beginning of serving grades 5 and 6 it now encompasses grades 2 through 8, serving approximately 150 gifted students, and further expansion towards the original goal of Kindergarten through 12 is projected for the near future. Parallel expansion into the areas of the Performing Arts and the Education of the Gifted-Handicapped is currently in preparation. On each grade level, LARC students are bussed to the LARC CENTER, a separate small building reserved for this purpose, one morning and one afternoon a week, for a total of five hours. LARC classes convene every day, except Monday mornings and Fridays. This schedule was negotiated with the teaching staff of each feeding school, who claimed that they needed the students on Mondays to give out assignments and again on Fridays in order to test whether the material has been learned. While there was no consensus among teachers for this request, we complied as we did in other instances. We have been consistently responsive and attuned to the needs of the faculty in full awareness that their cooperation and positive regard of the program is crucial to its success.

From the start, we have been conscious of the pitfalls of rendering the gifted program extraterritorial and isolated from the schools at large. We have been concerned with the fragmentation of the educational experience this would represent for the gifted child and with the likelihood of resentment and alienation of these students' teachers and peers in the feeding schools and secure the acceptance of LARC in the Long Beach School District, as well as to maximize its effect in the community, several principles and mechanisms has been developed and are here presented.

We established the principle that every step in the process of implementing LARC would be preceded by planned activities to gain acceptance for the plan. From school administrators, teachers, parents and the community at large, we attempt to gain acceptance by means of informing and inviting active involvement in our project. Our current efforts to institute Early Childhood LARC will serve as an example.

School Administrators

The LARC Administrator presented a detailed plan for implementing Early Childhood LARC to the Superintendent of Schools. This entailed plans for staffing, curriculum, screening and selection of students, scheduling, instructional materials and budget. Also, and importantly, it contained plans for informing Principals and representatives of the community, as well as a plan for an In-Service program for the faculty at large. In our school district we have enjoyed the whole-hearted support of the Superintendent of Schools for the education of the gifted and have consistently benefitted from his counsel. After this review and appropriate adjustments, the plans are presented at a Principals meeting. Reactions, advice and guidance are elicited and modifications are effected in response to the needs of the Administrators.

Teachers

We now offered a series of In-Service workshops on "Giftedness in Early Childhood" to the faculty at large. The support of Central Administration secured In-Service credit for attendance and, having won the approval of the Principals facilitated the attendance of a substantial number of teachers, grades K, one and two. The workshops were taught by our LARC teachers and by other experts in the field. The benefits to the faculty were manifold; they were alerted to manifestations of giftedness in their students and were provided with materials and techniques for promoting creativity in their classrooms. Another crucial benefit was the increased ability of these teachers to assist in the screening process for LARC. Teacher recommendation, an important adjunct to the selection for the gifted program, gained an added dimension from the increased expertise resulting from an In-Service program. Finally, LARC teachers and teachers from the feeding schools had an opportunity to get to know and respect each other, which accrued to the benefit of gifted students by preventing opposing pulls and loyalties occasioned by attendance in two separate educational settings. The teachers who attended the In-Service program, which in our method, preceded implementation of aspects of LARC, become the core of support for the program in their respective schools.

Parents and the Community at Large

While teacher workshops proceed we engage in educational efforts to gain the support of this group. We have a ready mechanism in the form of our Committee for the Gifted and Talented, the original springboard for the education of the gifted in Long Beach. This committee of parents, school personnel and other citizens meets once every month in the evening. Meetings are open and the function of the committee is to "advise and consent" regarding all matters pertaining to LARC. When a specific expansion is projected, a subcommittee from the ranks of the Committee for the Gifted and Talented is formed to research the project, visit existing programs and attend conferences relevant to it. Under the guidance of the Administrator our Subcommittee for Early Childhood LARC has done this successfully. At present, grade 2 has been implemented and we are projecting the institution of grade 1 and Kindergarten in the coming schoyl year. To gain support from this group for our project, we have, under the auspices of this Subcommittee, brought in speakers on this topic for our

monthly meetings from the ranks of our LARC staff, as well as other experts, heard reports from members of the Subco-mittee who had visited programs or attended conferences, and provided the membership with relevant printed materials. We had to dispel the notion held by several parents, that these children were "too young" to attend a gifted program. The expert information indicating the advisability of early attention to the needs of gifted children proved convincing. However, we modified our screening procedure responsive to Committee guidance. This is a good example of the give and take in the workings of the Committee for the Gifted and Talented. Prior to instituting grade 2 LARC, the initial step of Early Childhood LARC, the parents of the newly selected students were invited to an orientation meeting. The Administrator explained the objectives of the program and how we planned to achieve them, addressed herself to mental health issues relative to nurturing the special abilities of the gifted child while attending to his normal emotional needs and, finally, invited parents to join the Committee for the Gifted and Talented in order to have an active involvement in LARC. About 80% of the parents seemed pleased to comply and several of them signed up for subcommittees of their particular interest.

This is the paradigm for the initial stages of program implementarion in the LARC program. Needless to say, integrating a pull-out program into the total educational process requires on-going activities directed towards this end. To follow our previous outline of engaging the support of school administrators, teachers, parents and other members of the community, these techniques have either been established or are being explored.

Regularly scheduled meetings with Central Administration and presentations to Principals' meetings serve to apprise the educational leadership of the district of the problems as well as the triumphs of LARC. They also provide an opportunity for the LARC Administrator to benefit from the expertise and guidance of the administrators and to facilitate for her to dovetail LARC activities with the overall educational design.

Presentations to teacher groups at faculty meetings provide a forum for information on the gifted program and feedback from the teachers in regard to LARC students. From the ranks of members of the faculty who attend our In-Service workshop we create Creativity Committees for the respective schools. We attempt to provide these "creativity advocacy groups" with materials and opportunities to attend conference in the education of the gifted at LARC expense. We also attempt to institute Creativity Centers in the libraries of the feeding schools, displays of materials designed to elicit divergent thinking. These should be available to teachers on a lending basis. We are also planning a continuous series of In-Service programs for the district faculty on creativity and the education of the gifted, some sponsored by LARC and some as cooperative projects of LARC and the District In-Service Committee.

In regard to parents, the Committee for the Gifted and Talented has been described above. In addition to its monthly meetings, there are periodic Parent-LARC teacher meetings in the LARC CENTER. The format consists of a presentation by LARC faculty, followed by an extensive question and answer period designed to give parents an opportunity to find out about the current LARC instructional unit and other pertinent matters.

The Psychologist-Administrator counsels LARC students to get in touch with real-life issues and concerns, as well as generating in the community, an interest and involvement in our program for the gifted. We established links with our cultural institutions, which resulted in the creation of an Art Jury, which judged designs for decorating the LARC building, submitted by sixth grade LARC anonymously. We are exploring the possibility of exhibiting art created in LARC in our local banks. Our seventh grade LARC students are cooperating with Senior High School faculty in designing a curriculum in the City of Long Beach, to be used in our schools. These students and eighth grade LARC will also participate in "Rebuild", a project funded in part by a local bank and designed to produce an architectual survey of our city. It will identify historical buildings, as well as those which lend themselves to restoration. Our gifted students will produce blueprints and professionally guided photographic records of landmark buildings and those suitable for rebuilding.

We draw on the expertise of our parents and of other members of the community to enrich our program and to be enriched by sharing with our very receptive gifted students. A memorable example of this mutual enrichment was the contribution of a LARC parent, who is an amateur astronomer and has expert knowledge as well as fine equipment for viewing the stars. His presentation resulted in an evening presentation in front of our LARC CENTER attended by about 100 LARC students and parents, which was greatly appreciated and enjoyed. It was the culminating event of a LARC instructional unit on Astronomy.

All the examples presented are expressions of the underlying philosophy of the LARC Program. It represents a committment to spill-over of ideas and activities generated in the district-wide pull-out program for gifted and talented students, into the whole school environment and into the community at large. The benefits are seen as integrating the educational experiences of gifted students, making optimal use for all students in the district of techniques and ideas generated in the gifted program, enriching the gifted program through the infusion of contributions from the community and, last but not least, giving the community a sense of involvement and participation in LARC.

Accent on Gifted/Talented Students

by

Elizabeth Ryan
Evansville-Vanderburgh School Corporation (IN)

Elementary school teachers meet students every day who have special gifts and talents. Jim is an excellent leader; Mary, a creative writer; Jack, an aspiring scientist; Rachel, a superior math student; Stan, a creative artist; and Beth, a talented musician. These students and others like them must be challenged so that they will develop their abilities and become more than they are.

One elementary school has an ACCENT program for students with high potential. In order to provide the required leadership, a committee representative of primary, intermediate, and upper elementary teachers is appointed at the beginning of the school year. Teachers who serve on this committee have a deep concern for meeting the needs of Gifted/Talented students. Workshops, directed by outstanding leaders, are planned for the staff. Students who have high potential are identified.

The guidelines which have been developed for the ACCENT program include the following:

1. Projects must meet the needs of students and should be of special interest to the project director.

2. The criteria for the selection of students may very, depending upon the specific project.

3. The number of students involved in most projects range from two to twelve, depending upon the specific project.

4. Each project must be scheduled within a specified period of time, usually from four to eight sessions.

5. Parents must receive a letter describing the project and must sign a form indicating whether or not they want their children to participate.

6. Whenever possible, experiences should be shared with a group of students and/or parents.

7. Students and teachers should be involved in the evaluation of projects.

Projects have been directed by personnel from the local school, a university, and the news media. In addition, parents have been involved in leadership roles.

Examples of typical projects are as follows:

1. First and second year students were involved in a Then and Now project. Each child selected a mentor who was born before 1920. The mentor, who was interviewed by the child, related experiences from his/her own childhood. A written record of the interview was returned to the school. Mentors accompanied students on a carefully planned tour of the museum.

   Students participated in sessions at the school, where they created a photographic-time-line, listened to stories about the past, observed equipment used many years ago, and shared with each other what they had learned from their mentors. Each child created a personal Then and Now book for the culminating activity.

2. Sixth grade students were involved in a Spanish project. The project director developed a program using filmstrips and cassettes to aid in teaching conversational Spanish to the students.

3. Fourth grade students participated in a Math-Plus project which provided exciting experiences beyond the regular curriculum.

4. Third, fourth and fifth grade students joined students from two other elementary schools in a creative writing workshop. The students wrote poetry during the first two sessions. During the final session the original poetry, which was written by the students, provided the inspiration for further creative expression through art and/or music.

5. Project leadership provided training for the seventh and eighth grade class officers. The culminating activity was a community service project planned and implemented by the students.

ACCENT is the program used by one school to provide challenging and stimulating experiences for gifted/talented students. An important key to the success of ACCENT is the commitment of staff members to excellence and to the development of potential in gifted/talented students.

"Elitism: Some Responses"

by

Frederick B. Tuttle, Jr.

As I finished describing the proposed program for gifted and talented students, I braced myself for the inevitable question. When I asked for comments, the school board member on my right quickly fulfilled my expectations. "What about elitism with this program?"

When we talk about elitism in programs for gifted and talented, we should first discuss what is meant by the terms "gifted and talented". Actually, we are using these terms as a loose label for students who have some general learning characteristics in common. These characteristics are important to recognize as they already set some students apart from many of their classmates. For example, these students are usually goal rather than task oriented. They tend to pursue areas of interest in great depth in anticipation of producing something worthwhile, but they will often refuse to fill in a simple drill sheet for the sake of completing a task, even for a grade. Also, many of these students are associative thinkers, drawing associations among seemingly diverse and unrelated ideas. This trait also enables them to arrive at answers or procedures not easily recognized by others. Consequently, they are sometimes perceived as "wrong" or at least "weird".

These and other learning characteristics which qualify them for the program are not always considered positive attributes. (Tuttle and Becker, Identification, 1980) The student who pursues investigations at the expense of classwork or who constantly comes up with different answers will not always be looked upon favorably. Even the "good" traits possessed in the extreme by these students may hamper their work in the classroom. Curiosity, for example, can be irritating to teachers and other students as they do not always have the patience, time, or resources to answer the "why" ad infinitum or to pursue in depth ideas tangential to the curriculum.

By establishing a program for these students we are not suggesting that these individuals are superior to others, but rather that they are different from others in their approach to learning and in their instructional needs. The program is designed to accommodate and build upon their learning characteristics, not to set aside a "superior" or "elitist" group of students.

Then I proceeded to describe the curriculum for the program and the specific relationships between the curricular model and the various learning characteristics of the gifted and talented students in the program. After answering a few questions about resources and activities, the board member to my left asked, "Won't these kids feel special?"

Actually there are two answers to this question. First, they probably will not feel "special" in the sense of feeling superior to others in the school. The

attitude of elitism and superiority is usually one imposed on students by adults. Whenever proposals for gifted education are presented, the question of "elitism" is raised--by adults. Parents of "gifted" children fear the child's isolation from society and other parents fear the potential power of the "gifted" and the effect it may have on them and their children if it is encouraged. (Tuttle and Becker, Program, 1980) Very few children raise this question unless they have internalized some of their parents' fears. Adults tend to believe that because some students are in a special program designated for gifted and talented, they should feel "superior". In truth, this is not so. In her study of attitudes toward gifted programs, Barbara Ford found frequent comments such as 'why should (other students treat me differently because I'm in a special program)? I'm no different" and "They don't really care one way or the other." Among her conclusions, Ford stated, "Most gifted and talented students in special programs have noted indifferent attitudes on the part of a family, friends, and teachers regarding their work in special programs." (Ford, 1978) In short, most view participation in special programs as just another thing in school.

Second, students in good special programs do believe the program enables them to be themselves and to learn in a more comfortable atmosphere than in other situations. They feel they benefit from the programs, but they do not feel "superior" because of this benefit. In a study conducted in 1978-79, I found that 98% of the students in the program enjoyed being in it; 82% of the students found the work more interesting than in other classes; 82% of the parents felt their children enjoyed school more than before (many of the others felt their children always enjoyed school); 88% felt their children had either more friends (50%) or the same amount (38%) as before the program; and 80% felt their children had friends outside the program as well as in it. (Tuttle, 1979) I concluded that most of the students maintained friendships and developed more positive self-images through the special program designed to build upon their learning characteristics.

The comments I received from parents during this investigation also help support the value of special programs designed for these students. In response to the question: Do you see any changes in your child's behavior since entering the program?, parents' replies included:

Better able to face and solve a problem.
More self-confidence and broadening of horizons.
Beginning to plan ahead. Doesn't leave everything until last minute.
Seems to be more competitive.
More apt to use better vocabulary rather than covering up for fear of appearing "different" to other children.
More pride in work; more responsible.
More withdrawn since classmates live in a different neighborhood.
More self-assured, less anxious.
More interest in creating than copying.
Attitudes in study and enthusiasm have increased.
Enjoys school more. Isn't the disciplinary problem she was before
Becoming a confident and happy student.
Now he knows he is not a freak.

The parents found changes not only in academic work, but especially in self-concept. This increasingly positive self-image was not one of superiority but rather one of self-worth.

After outlining the in-service program to prepare teachers to identify and work with these students, I noticed the board member across from me tentatively begin to ask a question. Finally, it came out in a rush. "won't the kids in the program become snobs?"

Not usually, Indeed, many educators believe that elitist attitudes and "snobbery" are defensive reactions resulting from being in continually threatening or frustrating situations. When an individual feels hostility or resentment from others, he or she will naturally assume a defensive posture. (And remember, the individuals we are discussing for this program are especially perceptive of and sensitive to their environment, including feelings and attitudes of others.) The defense may be withdrawal, rebellion, or, sometimes, adoption of a "superior" attitude, accentuating those areas to which the classmates and teachers are reacting.

I recall two students who were notorious "snobs", constantly criticizing others and flaunting their successes. As a result they had very few, if any, friends. This was while they were in heterogeneously grouped classes. After becoming involved in the program for gifted and talented students, they began to shed their "elitist" actions and attitudes. By the end of the first year they not only had many friends in the special class, but they also had developed close relationships with several students outside that class. The instructional procedure geared to their characteristics and the attitude of their classmates had apparently alleviated their frustrations and feelings of hostility. They then were able to drop their defenses and interact more naturally and effectively with others.

In many instances a special program and homogeneous grouping is necessary to help these students avoid "elitist" attitudes and develop positive peer relationships. For example, when a teacher asks, "Helen, why do you think the class laughs when you get below a 90 on a test?" Helen cannot answer in the midst of the snickering class. She can consider it seriously only when she feels most of the others in the group share similar concerns and experiences. To confront issues of peer relationships and individual worth in an honest and direct manner, students need to believe their ideas and feelings will be understood sympathetically by others. This kind of understanding usually requires a sharing of similar experiences and feelings. Consequently, to help these students with social and peer relationships, we have to provide homogeneously grouped situations and opportunities to engage in discussion of these issues as they arise in the natural flow of the class. This calls for a program in which students of similar learning characteristics and concerns work together in a variety of situations over a long time.

As the time was moving toward 11:15 p.m., I concluded my remarks on the issue. If we look at special programs for gifted and talented, it is evident from research that they are beneficial to the students. (Martinson, 1972; Tuttle, 1978) Even more importantly, if we look at them from the student's point of view, it becomes equally evident that for the majority of these individuals

the programs are extremely worthwhile, even vital. The main values lie in the fact that the good programs allow these students to operate according to their particular learning characteristics and to discuss concerns and issues of relevance to the entire group. Some students comments will help to reinforce this. In response to the question: Do your (Program) classmates act differently from classmates in other classes?, student replies included:

They are more mature. (most common remark)
They don't show off or make fun of you.
They don't act nasty or push.
(They) are more sensitive to others' feelings.
Better behaved.
We talk about each others problems.
More serious at their work.
Nobody hates anybody, we all work together.
They don't act silly.

Other students made general comments about the special program for gifted and talented:

"This program allows me to discuss ideas which were not considered in my other class."

"At least here the kids do not laugh at my answers and the teacher lets me explain my ideas."

"Although the work is more difficult, I like it because we learn more methods to do it."

"I want to do the best I can, whereas if I were in another class, I'd feel I wouldn't learn anything."

"I lost some friends when I joined this class, but I gained a lot more."

The meeting adjourned at 11:47 p.m.

References

Ford, Barbara. "Student Attitudes Toward the Gifted" Gifted Child Quarterly, Vol. 22, No. 4, Winter, 1978.

Martinson, Ruth A. "Research on the Gifted and Talented: Its Implications for Education." Education of the Gifted and Talented: Report to the Congress of the United States by the U.S. Commissioner of Education. Washington, D.C.: Government Printing Office, 1972.

Tuttle, Frederick B., Jr. Evaluation of Delphi Program: Greece Central School. (Unpublished Report). Greece, New York, 1979.

Tuttle, Frederick B., Jr. Gifted and Talented Students. Washington, D.C.: National Education Association Publishing, 1980.

Tuttle, Frederick B., Jr., and Becker, Laurence A. Educating the Gifted and Talented: Characteristics and Identification. Washington, D.C.: National Education Association Publishing, 1980.

Tuttle, Frederick B., Jr., and Becker, Laurence A. Educating the Gifted and Talented: Program Design and Development. Washington, D.C.: National Education Association Publishing, 1980.

Legal Considerations of Equal Educational Opportunities For The Gifted

by

Hendrik C. de Bruin
The Citadel
Charleston, South Carolina

With the continuous movement toward the development of equal educational opportunities for all, many educational issues still need to be resolved. One of these is the setting up of legal guidelines for the education of gifted and talented youngsters. It is fairly well recognized that the courts have been, in recent years, the force behind efforts to guarantee the rights of students to an education. This paper then will look at applicable court decisions and possible legislation that effects the education of the gifted.

In 1969 legislation first established a federal office to deal with the gifted and talented child, and the office allocated funds for state and local district use for this group of important but neglected citizens. In fact, it is the opinion of the writer that this has been the area of greatest neglect when dealing with the rights of exceptional children. This has been true because we in education have not always known how to educate or even identify those children having special gifts. And when they had been identified, the professionals were hard pressed, and felt ill-prepared, to present them with a meaningful educational plan.

However, help is on the way, even if it is meager. "Only ten percent of America's gifted and talented children now get the help they need to realize their full potential, and minority and disadvantaged children are especially cheated by the way we identify giftedness," according to Hal Lyon, Head of the Federal Office for Gifted and Talented Education. (Education of the Handicapped, February 27, 1980.)

The U. S. Office of Education has also just recently set up a toll free hotline on gifted and talented education programs under contract with The Triton Corporation in Washington, D. C. This service will provide telephone information and mailed responses to inquires in English and Spanish. The office will also send out packets of information, one for the general public, one for teachers, and one for parents. The number to call is 800/424-2861. (Phi Delta Kappan, April, 1980.) The service will also describe research projects in the area of gifted and talented, and provide referrals to experts in the field, so that additional help may be solicited.

The U. S. Office of Education also recently called for applications for $200,000 in grants that will be awarded to state and local education agencies, as well as to private agencies, to establish educational services or model projects for educating the gifted. (Education of the Handicapped, January 30, 1980.)

The service will also describe research projects in the area of gifted and talented, and provide referrals to experts in the field, so that additional help may be solicited.

The U. S. Office of Education also recently called for applications for $200,000 in grants that will be awarded to state and local education agencies, as well as to private agencies, to establish educational services or model projects for educating the gifted. (Education of the Handicapped, January 30, 1980.)

And just this month, states like South Carolina have approved regulations for the distribution of $1.4 million dollars for gifted and talented programs. It will provide for an expansion of programs from 30 during the 1979-80 year to 70 in the 1980-81 year. (The News and Courier, March 13, 1980.) In most areas, local school districts are also providing considerable funding to supplement appropriations from the state and federal levels.

In some sections of the nation, school districts are providing programs for the gifted by pooling their resources and efforts and providing needed programs. (Brodie, 1980.) This program is a summer school program involving more than 400 children from five districts, and from the report is providing highly successful experiences for the talented.

These programs are very commendable, but do not guarantee an appropriate education for all the gifted youngsters in the U. S. The Council for Exceptional Children recently called attention to this fact, and the need for state legislatures to pass into law mandatory gifted education legislation. Under permissive legislation, gifted programs have suffered serious setbacks. (Education of the Handicapped, February 27, 1980.) A case in point is the decrease in the funding of programs as a result of the passage of Proposition 13 in California. Proposition 13 cut California property taxes to 1 percent of the 1975-76 assessment, with gifted programs reduced accordingly.

The CEC report went on further to say that gifted and talented programs are most successful under the same administrative structure and authority as education for the handicapped. Exceptional student programming requires proper identification, safeguards under the law, and management of programs at the state and local levels. The Model State Policy, Legislation and State Plan Toward the Education of Gifted and Talented Students, is available from CEC Headquarters. (Grossi, 1980.)

It becomes important therefore to look at what the courts have said about the education of the gifted and talented. The relationship of gifted and talented individuals to the courts has been the same as that of other people. Historically, there were no factors peculiar to them that would call for special care, or protection from the courts.

This state of affairs began to change with the landmark decision of Pennsylvania Association for Retarded Children in 1972 (Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania, 1972). It mandated at public expense that children who are handicapped be placed in programs suited to their needs,

and that the exclusion of these children, or any children, from public education is a denial of their constitutional rights.

Following the mandate in PARC above, requests have been made for the same treatment of other exceptional children, including the talented and gifted. The decision, in the author's opinion, has been responsible for much of the legislation we enjoy today.

The courts have been slow to venture into problems usually reserved for the states, and even more unwilling to rule on items reserved for the professionals. But in United States v. Texas Educational Agency, the Federal District Court held that the Mexican American plantiffs deserved and required special educational considerations because of being bilingual. (United States v. Texas Educational Agency, 1972.) The court ordered a comprehensive educational plan in which bilingual education was an important component.

The courts must wrestle with the concept of giving one class of citizens more funding than another once a minimum equality has been established.

In 1974, the Lau case was decided in which the Supreme Court held that non-English speaking Chinese students were entitled to relief as a class from the District's policy of providing special English instruction to only about 1,000 of over 2,800 students who needed it in order to profit from their studies. The District pleaded a lack of funds. The court observed that a student who does not understand the English language and is not provided with special instruction is effectively precluded from any meaningful education. (Lau v. Nichols, 1974.)

One of the justices in Lau made an interesting dissenting opinion that would have reserved to the states the right to make discretionary allocations. He stated that "the competition definition of equality of educational opportunity assumes that students have different capacities to profit from instruction and asserts that educational resources should be allocated in direct proportion to student's abilities..."

In the Mills case, which was a class action suit on behalf of a variety of exceptional children who were expelled, it was decided that the school's action was discriminatory because it denied them an education because of mental, behavioral, physical or emotional handicaps. The court went on to say that no child eligible for a publicly supported education should be excluded from the regular public school unless the child is provided with "adequate" alternative educational services suited to the child's needs. (Mills v. Board of Education of the District of Columbia.) In Mills, the school district again pleased lack of finances for implementing programs. The court said however, that constitutional rights must be afforded citizens despite the greater expenses involved. The following passage from the Mills case is worth repeating:

> The Board of Education and the Commissioner of the District of Columbia shall jointly develop procedures to assure maximum coordination of educational and other municipal programs and services in achieving the most effective educational system and utilization of educational facilities and services to serve broad community needs.

As one reads the case it is apparent that the defendant school district admitted that they had an obligation to take affirmative action and positive steps, but were financially unable to do so.

In the Sernu case, a definite plan of action was ordered by the court. (Serna v. Portales Municipal Schools, 1974.) A group of Spanish-American plantiffs brought this class action suit alleging the school district's failure to provide an "adequate" bilingual program and its failure to structure the curriculum in other ways to provide for the special needs of a sizeable number of Spanish speaking students. It is of interest to note that the Portales, New Mexico School system did in fact have a bilingual education program, and this fact was introduced at the hearings. The plaintiffs felt that the program was inadequate, and the judge rules in their favor. As stated in the decision, there was adequate evidence that appellant's proposed program was only a token plan that would not benefit appellees. It also stated that the educational program within the Portales School system was tailor-made to educate the middle class child from an English speaking family without regards to the educational needs of the child from an environment where Spanish is the predominant language.

And in a case that is currenly on appeal, a federal judge rules that school must offer a summer education program to those handicapped students who need it. (Armstrong v. Kline as reported in Education U.S.A, 1979.) Judge Clarence Newcomes said school officials violated the children's rights under the Education For All Handicapped Children Act (PL 94-142) by denying their parents request for a year round program. The law guarantees handicapped children a "free appropriate public education" that is to be based on an "individualized education" the judge noted. The state of Pennsylvania argued that its 180 day school year applied equally to all students. Judge Newcomes said that equality of services and programs is not the test for determining whether an appropriate education is being provided by the state. It is apparent that Congress demanded that in certain instances more be provided. It is estimated that the summer program would cost the state $500 million.

An interesting question now surfaces. If some children deserve summer programs at public expense, which ones are they? The judge refused to set any specific guidelines as to which students need summer programs. This is a job for the professional educators.

Another question that has been raised is, "Why aren't gifted and talented children covered un er the regulations of PL 94-1422?" Surely these children are exceptional. In a recent publication by the Turnbulls, the question is answered this way, "Gifted children have not been subjected to the same discrimination and violation of their constitutional rights as handicapped children. Federal programs already provide funds for their education, and like the non-handicapped child, they have been receiving at least a minimum level of education." (Turnbull and Turnbull, 1978.)

Whether you agree with this point of view or not, PL 94-142, the author feels, has helped to bring about long needed programs for the gifted.

It is commonly agreed upon by professional educators that the Individual Education Plan mandated in PL 94-142 is educationally sound. The idea has been

proposed that IEP's should be written and agreed upon for all children. The question is being asked, "Why shouldn't my gifted or non-handicapped child have an IEP?" There is nothing unique about an IEP that would make it unsuitable for the gifted child. This would be a method of individualizing instruction and helping students to realize their full potential. Only time will tell if this idea has merit.

In conclusion it is only fair to say that the courses have shown a genuine concern for equality of educational opportunities. This concern has led to a number of decisions, accompanied by court dicta, or opinions. Is is from the dicta that the various cases mentioned apply to the gifted. Until such time as one can show that the gifted child has not been able to reach his full potential as a result of education, courts of law will continue to move cautiously toward a definitve legal concept of what is equal educational opportunity. When gifted children do not reach their potential, then and only then, we will see courts of law ruling on equal educational opportunity in light of admissions, evaluations, classifications, and competition.

The author, however, is extremely optimistic that the concept of equal educational opportunities will continue to expand and include the gifted and talented child. As more and more definitive rulings are made in relation to the handicapped, it is my opinion that the rulings will include the exceptionality of the gifted. How fast courts move in this direction and whether state legislatures will increase support of programs for the gifted, will depend on the pressures brought to bear by groups and associations concerned with the education of the gifted.

References

Brodie, Thomas A., "Cooperation Among These Five School Boards Paid Off For Gifted Kids" - The American School Board Journal, Vol. 167, No. 2, February, 1980, p. 25

Burgdorf Jr., Robert L., The Legal Rights of Handicapped Persons, Cases, Materials, and Text - Paul H. Brookes Publishers, Baltimore, Maryland, 1980

de Bruin, Hendrik C., "Bilingual/Bicultural Education: Update of Lau v. Nichols", School Law Update - 1977, National Organization on Legal Problems of Education, 5401 S.W. Seventh Ave., Topeka, Kansas, p. 227

de Bruin, Hendrik C., "Alternatives to The Legal Restrictions Imposed on the Use of Standardized Tests" - Education New Mexico, Vol. 7, No. 2, Spring, 1977, p. 16

de Bruin, Hendrik C. and de Bruin, Jo Ann, "Resource Rooms-Help for the Classroom Teacher" - Education New Mexico, Vol. 6, No. 1, Fall, 1975, p. 19

Education of the Handicapped, Capitol Publications Inc., Suite G-12, 2430 Pennsylvania Ave., N.W., Washington, D.C., Vol. 6, No. 5, February 27, 1980, p. 9

Education of the Handicapped, Capitol Publications Inc., Suite G-12, 2430 Pennsylvania Ave., N.W., Washington, D.C., Vol. 6, No. 3, January 30, 1980, p. 1

Education U.S.A., National School Public Relations Association, 1801 North Moore St., Arlington, Virginia 22209, Vol. 21, No. 43, July 2, 1979, p. 332

Grossi, John, Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091, Publication No. 203

Lau v. Nichols, 414 U.S. 563, 94 S.Ct. 786 (1974)

Martin, Reed, Educating Handicapped Children: The Legal Mandate Research Press Compant, 2612 North Mattis Ave., Champaign, Illinois 61820, 1979

Mills v. Board of Education of the District of Columbia, 348 F. Supp. 866 (1972)

Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania, 343 F. Supp. 279 (1972)

Phi Delta Kappan, Phi Delta Kappa Inc., Eighth and Union, Box 789, Bloomington, Indiana 47402, Vol. 61, No. 8, April, 1980, p. 515

References (Continued)

Serna v. Portales Municipal Schools, 499 F. 2d 1147 (1974

The News and Courier, Charleston, South Carolina, March 13, 1980, p. 11-B

Turnbull, H. Rutherford and Turnbull, Ann, Free Appropriate Public Education, Law and Implementation - Love Publishing Co., Denver, Colorado 80222, 1978, p. 239

United States v. Texas Educational Agency, 467 F. 2d 848 (1972)

Project Work for the Gifted and Talented

by

Helen Fisher Darrow
University of Western Washington

While some children and youth share in common certain signs of being gifted and talented,[1] their particular gifts and talents will inevitably be unique. All highly intelligent, yet individuals will differ in thinking styles--being more reflective or more impulsive, more intuitive or more analytical, more logical or more imaginative. All highly talented, yet individuals will differ drastically in talent areas and particular talents. Even within a single talent area, talents will be different. Then when we add differences of temperament and personality, along with crucial differences in cultural outlook and behavior, we find ourselves deep in a century-old educational problem that won't go away--the problem of meeting individual differences; or perhaps more appropriately, the challenge of nurturing individuality!

For those of us who are not only committed to the vision of nurturing individuality, but equally to the nurturing of social abilities, the challenge takes on a double-edge. We seek pedagogical methods which enhance an individual's particular set of gifts and talents while also concomitantly promoting social learnings--caring for self and others, being responsible, participating actively in democratic ways, and others.

The Project Method

Among the methods we might consider for this dual purpose is the method of project work. Historically, project work dates back at least to the Renaissance when education evolved as an individual experience under the tutelage of a master scholar, with the guiding emphasis upon the notion of study, or inquiring, rather than its result, learning.[2] During the early twentieth century, the method reappeared strongly in the reform proposals of John Dewey, William Kilpatrick, and their followers.[3] Since then, while the method is widely used in English primary schools, its use in America seems confined to individual teachers and schools here and there working in a spirit of reform.

Perhaps it is time now, with our resurgent need for nurturing both individual giftedness and talent, and social learnings, to renew our understanding of project work, to give it a New Look and revitalize it as a basic way to work with children and youth to achieve worthy curriculum goals.

Project work is one of the few methods which require the learner to surface individual intentions for study, to extend individual interests, to stretch individual strengths and to practice in individual areas of need, all the while sharing oneself and one's emerging knowledge with others in a responsible, contributory manner.

How It Works

The notion of project work as a laissez-faire experience--"Let the darlings do as they please so long as they don't bother anyone"--is a degenerative notion, a false conception which unfortunately distorts the method's potential. As we examine the method more closely, we find that the teacher, contrary to belief, plays a strong role, not by establishing objectives and outcomes, nor by determining the course of action--these are the rights of the learners--but by these actions:

--valuing project work
--prodding to identify projects
--opening up new possibilities for projects
--suggesting alternatives for action
--encouraging persistence
--expecting quality of effort

In project work a symbiotic relationship forms between the learner and the teacher. The teacher promotes the project, actively taps sources for study and views the consequences of project work in terms of development. The learner, on the other hand, views the project as a plan to accomplish something desirable, an activity of personal interest. This interest supplies the energy needed to move a project from conception to completion--to the satisfaction of the learner. In the course of action the learner actively pursues and gains understanding--knowledge of one kind or another.

Project work is more focused than simple activity. Individuals in project work go beyond dabbling; they settle down to control their ideas and actions in terms of an outcome which they have envisioned. The duration and intensity of project work varies with age, interest, and the nature of a particular project. Any project may last an hour, a day, a week; or continue intermittently over a long period of time. Any project may involve a single individual, a partnership, a small group or a large group. Regardless of the number involved, however, sharing is its culmination. Sharing occurs, too, during the project's unfolding, as individuals share ideas, materials, problems, solutions, successes, failures.

At times individuals move quickly into projects of their choice, with little outside stimulation needed except for permission. At other times individuals move slowly into projects, spending time in pre-project work, engaging in spontaneous activity, 'messing around' with materials to get a sense of them and their possibilities. Drawing pictures randomly of animals may lead to a disciplined plan for a portfolio of drawings to show animal adaptation characteristics. Reading a scientific book during leisure time may lead to a disciplined plan to install an electric bell set for a classroom puppet stage. Dappling with paint colors may lead to controlled experimentation and production of a Book of New Colors.

Sometimes materials are simply made available in centers for individuals to find and use; sometimes they are formally introduced under teacher direction in workshop settings.

Inquiry as Its Focus

Once a project has been identified, the teacher stays in touch through dialoguing, conferencing and leading group meetings, attempting to keep the focus upon inquiry and the development of personally-socially useful understandings, that is, knowledge.

Inquiry itself may have many faces, leading to different views of knowledge. Since project work depends so much upon inquiry, it makes sense to think of project work in terms of different modes of inquiry, assuming they can be identified. We might even try to categorize projects according to inquiry types, each kind stressing a different mode of inquiry, but not necessarily excluding other modes.

In my own attempts to do this, I have come up with seven types of projects,[4] briefly described here:

Symbolic projects centering around the use of print and audio-visual materials. In these projects students inquire by gathering information on curiosity questions or interest topics, by searching through materials like books, newspapers, pamphlets, photographs, recordings, and the like, using authentic materials whenever possible for their inquiry. Such a project might be a study of the history of writing or a study of current minority leaders.

Retro-introspective projects centering around the use of personally known and sensed information. In these projects students inquire by gathering information from internal sources like memory, dream recall, value preferences, opinions, and the like, searching within themselves for what they know, how they think and feel, and why. Such a project might be a study of their leisure time or a study of their friendships.

Practical improvement projects centering around the use of skill practice materials. In these projects students search for improvement in areas of interest or concern, using materials like expert advice from master technicians or artists, guidebooks, handbooks, workbooks, demonstration films, filmstrips, and the like. Such a project might be the study of handwriting legibility, figure drawing or social introductions.

Scientific projects centering around the use of research tools. In these projects students inquire by gathering information scientifically, accumulating data to verify hunches, test out hypotheses or answer researchable questions. Such a project might be an investigation of human emotions or a survey of city park use.

Imaginative projects centering around the use of art and literary materials. In these projects students inquire by gathering information from the world of intuition, using materials like imagination, fantasy, and sensorial experiences like handling fabric, taking walks, dreaming, responding to music or poetry. Such a project might be creating a book of original fables or composing a tall tale play.

Play-at-reality projects centering around the construction of materials for creative drama and playacting. In these projects students inquire by building and preparing to enact aspects of reality in their lives. Such a project might be the 'living out' of a Costeau adventure, the economics of 'community shops' set up in the classroom, or the re-enactment of an early settlement.

Philanthropic projects centering around the use of personal energy rendered in social service. In these projects students inquire as they direct attention to improving living conditions for themselves and others. Such a project might be the development of a school museum or the organization of a campaign to preserve wild life.

Fulfilling Its Potential

As we deepen our understanding of project work, as we broaden the scope of project possibilities, we will better engage the power of project work to accommodate the uniqueness of children and youth, whatever their special gifts and talents. With many kinds of projects functioning in school and classrooms, all available for individual choosing, project work should fulfill its potential--not only to stimulate the revelation of individual giftedness and talents, but their development--in a responsible, social setting.

References

1. Gallagher, James, "Issues in Education for the Gifted", Chapter II in The Gifted and the Talented: Their Education and Development, 78th Yearbook, National Society for Study of Education, Univ. of Chicago Press, 1979.

2. McClintock, Robert, "Toward A Place for Study in a World of Instruction," Teachers College Record, Vol. 73, Issue 2, December 1971.

3. John Dewey on Education, University of Chicago Press, 1974; Kilpatrick, William, Foundations of Method, Arno Press and New York Times, 1971.

4. Darrow, Helen F., Project Work in the Name of Social Studying, in press.